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DEPARTMENT OF THE INTERIOR.

Philippine Weather Bureau.

REPORT

OF THE

DIRECTOR OF THE PHILIPPINE WEATHER BUREAU,

1902.

PARTS IV AND V.

Hourly Magnetic Observations Made at the Manila Central Observatory,
and Meteorological Results of the Stations, 1902.

MANILA:
BUREAU OF PUBLIC PRINTING.
1904.

7542

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PART IV.

**HOURLY MAGNETIC OBSERVATIONS MADE AT THE MANILA
CENTRAL OBSERVATORY, 1902.**

LETTER OF SUBMITTAL.

DEPARTMENT OF THE INTERIOR, PHILIPPINE WEATHER BUREAU,
Manila, August 3, 1903.

SIR: I have the honor to submit the observations made in the Magnetical Observatory during the past year, 1902.

The values contained in the following tables have been deduced from the records of the Mascart registering instruments. The values of horizontal and vertical force are corrected for temperature. No disturbed days were omitted in the calculation of monthly means.

All the dates and times in the tables correspond to 120° east of Greenwich civil time, which is exactly eight hours fast of Greenwich.

The monthly observations of the absolute measurement for declination, horizontal force, and inclination, together with the disturbances, appeared in the Bulletin for the different months. A summary of the principal disturbances, together with the magnetograms of the greatest ones, may be seen in the December Bulletin for 1902.

Very respectfully,

MIGUEL SADERRA MASÓ,
Assistant Director in Charge of the Magnetic Department.

The DIRECTOR OF PHILIPPINE WEATHER BUREAU.

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

EASTERLY DECLINATION ($0^{\circ} 40'$ + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	12'.93	12'.65	12'.51	12'.23	11'.95	12'.09	12'.23	13'.65	*14'.22	13'.51	12'.09	11'.38
2	12.14	12.00	11.85	11.85	11.85	11.85	11.43	12.14	13.13	*13.42	12.99	11.85
3	11.89	11.75	11.61	11.75	11.75	11.61	11.18	11.75	*12.46	*12.46	11.75	11.33
4	12.04	12.04	12.04	11.89	11.89	11.89	11.47	11.89	12.46	*13.03	12.60	11.47
5	11.75	11.61	11.75	11.61	11.61	11.47	11.33	11.75	13.03	13.88	*14.02	11.75
6	11.75	11.75	11.75	11.75	11.89	11.89	11.47	11.89	13.03	13.60	13.03	11.61
7	11.75	11.75	11.75	11.89	12.04	12.04	11.75	12.32	13.46	*14.31	13.74	12.32
8	11.75	11.75	11.75	11.75	11.75	11.61	*10.90	11.18	11.89	*12.32	*12.32	12.18
9	11.75	11.75	11.89	11.89	11.89	11.75	*11.04	11.75	12.60	*13.46	12.60	12.18
10	12.05	12.05	12.05	12.05	12.05	11.76	*11.34	11.76	13.18	*13.47	12.61	11.76
11	12.05	12.05	12.05	12.05	11.90	11.62	*11.05	11.48	*12.90	*12.90	11.62	11.19
12	11.76	11.62	11.62	11.62	11.76	11.62	*10.91	11.48	12.33	*12.76	12.33	11.76
13	11.76	11.62	11.62	11.48	11.34	11.05	10.91	11.76	*13.61	13.47	12.19	11.05
14	11.76	11.76	11.62	11.62	11.48	11.05	*10.91	11.76	13.32	*13.61	12.05	*10.91
15	11.76	11.76	11.76	11.76	11.62	11.48	11.34	12.33	*13.75	13.04	11.76	11.19
16	11.76	11.76	11.62	11.90	11.76	12.05	10.63	*9.77	11.34	10.91	10.63	11.34
17	11.33	11.33	11.33	11.93	11.33	11.33	11.33	11.90	*12.89	10.91	10.67	*10.33
18	11.53	11.53	11.67	11.67	11.81	11.81	12.38	13.55	*14.22	13.51	12.09	11.95
19	11.52	11.37	11.37	11.23	11.37	11.66	11.52	12.37	*13.22	12.79	11.52	10.10
20	11.52	11.52	11.37	11.37	11.37	11.37	11.37	12.37	*13.36	*13.36	12.94	11.80
21	11.79	11.65	11.65	11.51	11.36	11.08	11.22	12.64	*13.78	13.21	11.93	11.36
22	11.79	11.79	11.79	11.65	11.65	11.65	11.51	12.64	*13.35	*13.35	12.64	11.93
23	11.92	11.92	11.78	11.78	11.78	11.50	11.21	11.92	*13.20	12.63	11.78	10.79
24	11.73	11.78	11.78	11.78	11.64	11.21	*10.36	10.50	12.35	*13.06	12.63	12.06
25	11.77	11.91	11.91	11.77	11.77	11.63	*10.78	11.06	12.05	*12.62	11.77	11.34
26	11.77	11.77	11.63	*11.49	11.63	*11.49	*11.49	11.91	13.19	*13.47	12.70	11.77
27	11.76	11.76	11.76	11.62	11.48	11.33	10.91	11.76	*13.32	13.18	10.77	10.06
28	11.62	11.62	11.62	11.62	11.76	11.62	11.48	11.90	13.04	13.75	*13.89	13.32
29	11.75	11.75	11.75	11.61	11.61	11.61	*10.90	11.18	12.60	12.89	*13.45	11.75
30	11.75	11.75	11.75	11.75	11.75	11.61	11.61	12.32	14.02	*14.59	12.60	11.75
31	11.88	11.88	11.74	11.74	11.74	11.60	11.60	11.74	12.88	*13.30	12.31	10.89
Mean	11.81	11.77	11.75	11.71	11.70	11.59	11.28	11.88	13.04	*13.20	12.32	11.50

HORIZONTAL FORCE (0.38 . . . + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	92	*91	93	93	93	95	95	98	106	125	*133	122
2	*95	98	99	101	100	101	103	108	113	126	*132	128
3	101	102	102	104	107	108	112	112	119	131	*141	130
4	104	100	105	99	96	100	100	99	100	112	119	*128
5	*97	102	104	110	105	104	103	101	102	112	122	*133
6	104	101	102	103	102	101	97	*95	101	117	128	*136
7	110	104	*103	107	106	106	106	108	112	117	*125	124
8	105	106	108	112	112	111	111	111	116	123	*133	131
9	99	104	106	103	104	103	107	112	119	129	*132	130
10	101	99	98	98	97	100	104	112	122	137	143	*144
11	102	102	101	100	96	*95	99	102	114	122	*126	119
12	98	97	97	*96	*96	98	102	106	113	123	*128	127
13	104	105	105	106	106	108	114	121	124	*140	*140	135
14	*99	*99	101	102	101	*99	106	114	127	144	*150	*150
15	100	101	103	104	103	105	106	112	129	135	*138	137
16	99	*100	90	87	85	76	71	75	68	60	85	73
17	71	72	76	74	*70	76	76	77	87	98	99	95
18	83	82	85	84	*81	*81	*81	83	89	95	*103	97
19	86	84	*83	*83	89	90	93	98	104	116	129	*130
20	93	95	95	95	95	95	94	93	95	106	*107	*107
21	93	91	91	*90	*90	92	96	100	111	123	*127	123
22	*93	95	95	99	98	100	104	106	116	133	*144	137
23	95	95	97	99	96	97	100	108	119	*122	120	111
24	94	94	94	94	92	93	103	112	126	138	*149	147
25	80	*77	84	83	83	89	104	110	115	*118	116	105
26	88	91	91	90	91	92	98	108	126	137	*143	137
27	91	92	90	*89	91	90	95	104	120	*136	135	120
28	99	96	97	*94	95	96	103	114	133	145	*152	145
29	99	101	98	101	100	98	103	115	137	154	*159	151
30	96	96	*94	95	95	98	101	111	122	135	*142	141
31	100	102	101	102	106	105	105	110	120	131	*132	125
Mean	96	96	96	97	96	97	100	104	113	124	*130	126

MAGNETIC OBSERVATIONS FOR JANUARY, 1902.

5

EASTERLY DECLINATION ($0^{\circ} 40'$ + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	12 p.	Mean.
11'. 24	*10'. 95	11'. 38	12'. 23	12'. 37	12'. 23	12'. 23	12'. 23	12'. 23	12'. 09	12'. 09	12'. 09	12'. 28
*11. 00	11. 29	11. 85	12. 42	12. 71	12. 42	12. 28	12. 28	12. 14	12. 14	12. 14	12. 00	12. 13
*10. 90	11. 04	11. 18	12. 04	*12. 46	12. 18	12. 18	12. 18	12. 18	12. 18	12. 18	12. 04	11. 83
10. 76	*9. 62	10. 19	11. 18	12. 32	12. 32	12. 32	12. 32	12. 04	11. 89	11. 89	11. 89	11. 79
10. 90	10. 47	10. 62	11. 47	12. 32	12. 32	12. 32	12. 18	12. 18	12. 18	12. 04	11. 89	11. 92
11. 75	11. 04	*10. 90	11. 75	12. 32	12. 32	12. 18	12. 18	12. 04	12. 04	11. 89	11. 75	11. 98
11. 89	*11. 33	11. 61	11. 89	12. 32	12. 32	12. 32	12. 18	12. 04	12. 04	11. 89	11. 75	12. 20
11. 47	11. 04	11. 47	12. 04	*12. 32	*12. 32	*12. 32	*12. 32	12. 18	12. 04	11. 89	11. 89	11. 85
11. 33	*11. 04	11. 47	12. 04	12. 32	11. 89	12. 04	12. 18	12. 18	12. 18	12. 18	12. 04	11. 98
12. 33	11. 48	*11. 34	12. 05	12. 33	12. 19	12. 19	12. 19	12. 05	11. 90	11. 90	11. 90	12. 08
11. 48	11. 34	11. 48	12. 05	12. 33	12. 19	12. 19	12. 05	11. 90	11. 90	11. 76	11. 76	11. 89
12. 05	11. 48	11. 62	12. 05	12. 19	12. 19	12. 19	12. 05	12. 05	11. 90	11. 90	11. 76	11. 89
11. 05	*10. 63	10. 91	11. 05	11. 48	11. 76	12. 05	12. 19	12. 19	12. 05	11. 90	11. 90	11. 71
11. 05	*10. 91	11. 34	11. 90	12. 19	12. 19	12. 19	12. 05	12. 05	12. 05	11. 90	11. 90	11. 82
11. 19	*11. 05	11. 34	11. 90	12. 05	12. 05	12. 19	12. 19	12. 19	12. 05	11. 90	11. 90	11. 85
10. 91	10. 91	11. 19	12. 05	*12. 61	12. 47	12. 04	12. 04	12. 04	11. 90	11. 76	11. 47	11. 54
*10. 33	10. 76	11. 32	12. 18	12. 32	12. 32	12. 18	12. 18	11. 75	11. 75	11. 75	11. 61	11. 55
11. 53	10. 53	*10. 39	11. 24	11. 81	11. 81	11. 95	11. 81	11. 81	11. 67	11. 67	11. 67	11. 90
*9. 10	9. 53	9. 95	11. 23	11. 80	11. 80	11. 80	11. 80	11. 80	11. 80	11. 66	11. 66	11. 42
10. 38	*9. 53	9. 67	10. 38	11. 09	11. 66	11. 80	11. 80	11. 80	11. 80	11. 80	11. 80	11. 55
10. 80	*10. 65	10. 80	11. 36	12. 22	12. 07	12. 07	12. 07	11. 93	11. 93	11. 93	11. 93	11. 79
10. 94	*10. 37	10. 51	11. 22	11. 79	11. 79	11. 93	11. 93	12. 07	12. 07	11. 93	11. 93	11. 84
10. 50	*10. 36	*10. 36	10. 93	11. 64	11. 78	11. 92	12. 06	12. 06	11. 92	11. 92	11. 78	11. 64
11. 78	11. 78	11. 92	12. 49	12. 64	12. 06	12. 06	12. 06	11. 92	11. 92	11. 92	11. 78	11. 88
11. 34	11. 20	11. 63	12. 05	12. 34	12. 20	12. 05	11. 77	11. 77	11. 77	11. 77	11. 77	11. 75
12. 20	12. 05	12. 34	13. 05	12. 91	12. 05	11. 91	11. 91	11. 77	11. 77	11. 77	11. 77	12. 08
9. 77	10. 34	11. 05	12. 33	12. 61	12. 04	11. 90	11. 90	11. 76	11. 76	11. 76	11. 76	11. 61
11. 90	11. 33	*10. 91	11. 62	11. 90	12. 04	11. 90	11. 76	11. 76	11. 76	11. 76	11. 76	11. 99
11. 18	11. 32	12. 18	12. 89	13. 17	12. 46	12. 32	12. 03	11. 89	11. 75	11. 75	11. 75	11. 98
10. 90	*10. 76	11. 18	11. 75	12. 03	12. 03	11. 89	11. 89	11. 89	11. 75	11. 75	11. 75	11. 95
*10. 18	10. 46	10. 89	11. 46	11. 88	12. 02	11. 88	11. 74	11. 60	11. 46	11. 32	11. 18	11. 94
11. 12	*10. 86	11. 13	11. 82	12. 22	12. 11	12. 09	12. 04	11. 97	11. 91	11. 84	11. 79	11. 85

HORIZONTAL FORCE (0.38 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	12 p.	Mean.
116	110	107	104	104	100	99	99	99	99	99	98	103
112	106	110	108	108	109	108	103	101	101	99	98	107
124	123	112	112	105	100	*96	100	99	101	105	105	110
119	111	112	106	106	104	97	*91	93	96	98	98	104
129	123	119	109	106	102	99	100	102	103	104	105	108
134	121	114	107	107	107	109	108	106	106	106	109	109
124	121	115	107	108	106	105	104	105	*103	104	105	110
126	121	117	109	107	105	105	*100	101	*100	*100	*100	111
122	112	108	103	103	105	105	105	100	99	*97	103	109
137	122	116	107	102	101	104	103	97	*95	98	101	110
114	108	103	102	102	101	99	98	98	99	100	100	104
119	113	112	106	105	103	105	103	103	105	103	104	107
124	115	108	107	104	106	102	100	*98	100	100	99	111
142	125	113	107	106	103	103	102	*99	*99	100	101	112
130	120	111	109	110	108	105	104	102	100	*82	87	110
84	78	65	66	72	73	67	64	*58	67	70	71	75
*104	95	91	86	81	78	75	74	77	78	77	84	82
92	94	89	88	89	89	87	85	84	82	87	87	87
123	118	110	102	100	98	95	95	92	92	91	93	100
103	99	90	91	93	93	93	93	93	90	90	*89	95
117	114	109	110	107	104	95	94	94	93	93	94	102
121	113	105	98	99	102	101	97	99	96	94	96	106
102	100	102	99	97	99	100	97	96	95	*94	96	102
144	132	119	112	103	103	104	107	98	88	78	*74	108
96	88	87	89	86	88	87	84	84	84	86	88	92
130	123	112	109	101	92	*71	73	72	82	88	87	101
112	98	90	*89	92	93	92	92	94	94	94	91	99
136	123	111	103	99	100	98	97	97	97	95	97	109
147	133	121	111	104	100	98	97	99	97	*96	97	113
137	130	114	102	100	99	100	100	99	98	101	101	109
120	116	107	103	103	102	100	99	98	95	*93	*93	107
121	113	106	102	100	99	97	96	95	95	*94	95	104

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

VERTICAL FORCE (0.1 . . . + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	1031	1031	1031	1031	1031	1032	1034	1034	1028	1014	1001	*992
2	1037	1037	1035	1035	1034	1034	1034	1038	*1041	1037	1025	*1018
3	1041	1043	1043	1041	1040	1038	1038	1043	1044	1038	1035	1031
4	*1043	1042	1040	1036	1033	1033	1032	1033	1033	1032	1027	1016
5	1039	*1040	1039	1037	1034	1034	1034	1034	1036	1034	1022	1007
6	1034	1033	1032	1032	1030	1030	1029	1030	*1037	1034	1017	*1000
7	*1032	1030	1027	1027	1026	1024	1024	1030	1030	1022	1007	*996
8	1027	1027	1026	1026	1026	1024	1023	1023	1022	1020	1016	1009
9	*1033	1032	1030	1030	1026	1023	1020	1022	1024	1022	1012	1007
10	*1032	1030	1030	1029	1026	1024	1022	1022	1022	1012	*1000	1002
11	*1026	1024	1024	1024	1022	1020	1020	1022	1020	1013	1002	*994
12	1019	1019	1019	1017	1017	1016	1016	1016	1013	1009	1002	*999
13	1023	1023	1023	1022	1020	1019	1019	1022	1018	1011	1001	*999
14	*1027	1024	1023	1023	1022	1020	1019	1022	1020	1014	1002	*992
15	1024	1023	1022	1020	1020	1019	1017	1020	1017	989	*979	982
16	1026	1025	1022	1022	1021	1021	1019	1029	*1032	1019	1011	1006
17	1031	1032	1035	1034	1032	1032	1034	1035	1038	1028	1015	*1011
18	1037	*1039	*1039	1037	1036	1036	1037	1034	1027	1014	*1009	*1009
19	1030	1029	1029	1029	1029	1029	1028	1030	1030	1020	1008	*1005
20	1031	*1033	1031	1031	1030	1030	1028	1030	1030	1020	1008	1006
21	1030	1027	1026	1025	1023	1025	1025	1027	1025	1017	1007	*1005
22	1032	1032	1032	1032	1031	1031	1031	1029	1028	1025	*1018	*1018
23	1034	*1035	1034	1034	1034	1033	1031	1030	1027	1017	1015	*1014
24	1023	1022	1022	1020	1017	1014	1013	1013	1014	1010	1004	*1003
25	1021	1021	1021	1019	1021	1019	1018	1018	1015	1009	1006	*1005
26	*1019	1018	1018	1018	1018	1018	1015	1013	1011	1002	989	*986
27	1019	1020	1019	1017	1016	1014	1013	1014	1016	1004	984	*980
28	1019	1017	1017	1016	1016	1016	1013	1013	1013	1007	1003	996
29	1020	1021	1020	1020	1020	1019	1017	1021	1024	1017	1010	*994
30	1024	1024	1024	1023	1021	1021	1021	1023	1019	1010	*996	*996
31	1023	1021	1020	1020	1019	1019	1017	1019	1020	1016	1006	*1003
Mean	1029	1028	1028	1027	1026	1025	1024	1025	1025	1017	1008	*1003

EXTREME VALUES.

Day.	Easterly declination.					Horizontal force.				
	Maxima.	Hour.	Minima.	Hour.	Daily range.	Maxima.	Hour.	Minima.	Hour.	Daily range.
1	0 54.22	9 a.	0 50.95	2 p.	3.27	0.38133	11 a.	0.38091	2 a.	0.00042
2	53.42	10 a.	51.00	1 p.	2.42	132	11 a.	95	1 a.	37
3	52.46	9.10 a. and 5 p.	50.76	1.21 p.	1.70	141	11 a.	95	7 p.	45
4	53.03	10 a.	49.62	2 p.	3.41	130	11.55 a.	91	8 p.	39
5	54.31	10.30 a.	50.33	2.20 p.	3.98	135	0.19 p.	97	1 a.	38
6	53.74	10.21 a.	50.76	2.33 p.	2.98	136	12 m. d.	95	8 a.	41
7	54.31	10 a.	51.33	2 p.	2.98	125	11 a.	103	3 a. and 10 p.	22
8	52.32	Various.	50.90	7 a.	1.42	136	11.12 a.	98	8.23 p.	38
9	53.46	10 a.	51.04	7 a. and 2 p.	2.42	135	11.06 a.	97	11 p.	38
10	53.47	10 a.	51.34	7 a. and 3 p.	2.13	148	11.34 a.	95	10 p.	53
11	53.32	9.31 a.	51.05	7 a.	2.27	126	11 a.	95	6 a.	31
12	52.90	9.40 a.	50.91	7 a.	1.99	131	11.34 a.	96	4 and 5 a.	35
13	53.75	9.21 a.	50.48	2.20 p.	3.27	140	10 and 11 a.	98	9 p.	42
14	53.61	10 a.	50.77	0.17 p.	2.84	150	11 and 12 m. d.	99	Various.	51
15	53.75	9 a.	51.05	2 p.	2.70	138	11 a.	78	11.21 p.	60
16	52.61	9 p.	49.77	8 a.	2.84	103	2.37 a.	58	9 p.	45
17	52.89	9 a.	49.90	0.37 p.	2.99	113	11.33 a.	68	5.20 a.	45
18	54.22	9 a.	50.25	2.49 p.	3.97	105	10.42 a.	81	5 to 7 a.	24
19	53.36	9.28 a.	49.10	1 p.	4.26	130	12 m. d.	83	3 and 4 a.	47
20	53.50	9.24 a.	49.53	2 p.	3.97	107	11 a. and 12 m. d.	89	12 m. n.	18
21	53.78	9 a.	50.65	2 p.	3.13	127	11 a.	88	0.23 a.	39
22	53.35	9 and 10 a.	50.37	2 p.	2.98	146	11.20 a.	93	1 a.	53
23	53.34	9.18 a.	50.36	2 and 3 p.	2.98	122	10 a.	94	11 p.	28
24	53.06	10 a.	50.36	7 a.	2.70	149	11 a.	74	12 m. n.	75
25	52.62	10 a.	50.78	7 a.	1.84	121	10.25 a.	74	0.09 a.	47
26	53.47	10 a.	51.34	6.39 a.	2.13	143	11 a.	66	8.16 p.	77
27	53.61	9.28 a.	49.63	0.45 p.	3.98	141	10.42 a.	87	0.01 a.	54
28	53.89	11 a.	50.91	3 p.	2.98	152	11 a.	90	0.30 a.	62
29	53.45	11 a.	50.76	7.30 a.	2.69	159	11 a.	92	11.32 p.	67
30	54.59	10 a.	50.76	2 p.	3.83	142	11 a.	94	3 a.	48
31	53.30	10 a.	50.04	0.45 a.	3.26	135	11.42 a.	93	11 and 12 m. n.	42
Mean	53.46		50.54		2.92	133		89		44

MAGNETIC OBSERVATIONS FOR JANUARY, 1902.

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VERTICAL FORCE (0.1 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	12 p.	Mean.
999	1008	1019	1029	1035	1035	1035	1035	1035	1035	*1037	1035	1026
*1018	1024	1031	1038	1040	1040	1040	1040	1038	1040	1038	1037	1035
*1027	1034	1040	1044	*1050	1048	1048	*1050	1047	1047	1045	1045	1042
*1013	1017	1026	1033	1039	1037	1037	1037	1039	1040	1040	1039	1033
*1003	1006	1020	1029	1033	1033	1033	1034	1036	1036	1034	1034	1030
1003	1006	1012	1023	1029	1030	1032	1032	1032	1032	1032	1033	1026
997	1003	1012	1022	1029	1029	1030	1030	1030	1029	1030	1027	1023
*1004	1010	1017	1026	1032	1029	*1033	*1033	*1033	*1033	*1033	*1033	1024
*1004	1014	1023	1030	1032	1032	1032	1032	1030	1032	1032	1030	1025
1002	1006	1017	1024	1024	1024	1026	1027	1024	1024	1027	1029	1021
997	1004	1010	1016	1020	1020	1020	1020	1020	1020	1020	1019	1017
1000	1004	1012	1017	1022	1023	1024	1026	1026	*1027	1024	1024	1016
1000	1004	1013	1023	1026	*1027	*1027	*1027	1026	*1027	*1027	*1027	1019
996	1006	1012	1023	1024	1024	1024	1024	1024	1024	1026	1026	1018
992	999	1011	1019	1021	1022	1022	1023	1023	1021	1023	*1026	1014
*1005	1009	1018	1029	1030	1031	1031	1031	1031	1031	1031	1031	1023
1021	1030	1040	*1045	*1045	1041	1040	1040	1040	1041	1041	1040	1034
*1009	1013	1017	1027	1033	1034	1036	1036	1034	1033	1034	1031	1029
1006	1012	1023	1032	1033	*1035	*1035	*1035	*1035	*1035	*1035	*1035	1027
*1003	1008	1017	1026	1030	1031	1031	1031	1031	1031	1031	1030	1025
1009	1015	1020	1026	1029	1030	1032	1032	1030	1032	*1033	*1033	1024
*1018	1021	1025	1029	1035	1035	*1036	1035	1035	1034	1034	1035	1030
1018	1023	1030	1030	1031	1030	1030	1028	1027	1025	1024	1024	1027
1007	1016	1023	*1024	1023	1022	1022	1022	1022	1023	1022	1022	1018
1011	1015	1025	*1029	1028	1023	1023	1022	1022	1022	1022	1021	1019
994	1003	1011	1017	1017	1013	1014	1016	1017	*1019	*1019	*1019	1012
993	1006	1016	*1026	1024	1020	1020	1019	1019	1020	1020	1019	1013
*991	1000	1011	1021	*1024	1023	1021	1020	1023	*1024	1020	1021	1014
999	1007	1019	1026	*1027	1026	1026	*1027	*1027	1026	1024	1024	1019
997	1003	1013	1021	1024	1024	1024	1024	1024	1024	*1026	1024	1018
1006	1010	1016	1023	*1026	*1026	1024	1024	1024	1024	1024	1024	1019
1005	1011	1019	1027	*1030	1029	1029	1029	1029	1029	1029	1029	1023

EXTREME VALUES.

Vertical force.					Northerly dip.					
Maxima.	Hour.	Minima.	Hour.	Daily range.	Daily mean.	Maxima.	Hour.	Minima.	Hour.	Daily range.
0.11037	11 p.	0.10932	12 m.d.	0.00045	16 08.34	16 09.35	11 p.	16 05.05	12 m.d.	4.30
1041	9 a.	1014	0.20 p.	27	8.99	9.56	10 p.	6.86	0.20 p.	2.70
1050	5 and 8 p.	1027	1 p.	23	9.51	10.41	8 p.	7.92	1 p.	2.49
1013	1 a.	1009	1.15 p.	34	8.90	9.75	2 a.	6.74	1.15 p.	3.01
1040	2 a.	1008	1 p.	37	8.55	9.57	1 a.	5.80	1 p.	3.77
1057	9 a.	1000	12 m.d.	37	8.20	8.98	1 a.	5.38	12 m.d.	3.60
1032	1 a.	994	0.20 p.	38	7.92	8.67	1 a.	5.17	0.20 p.	3.50
1034	8.33 p.	1002	0.32 p.	32	7.98	9.04	8.23 p.	5.74	0.32 p.	3.30
1033	1 a.	1004	1 p.	29	8.11	9.02	1 a.	6.05	1 p.	2.97
1032	1 a.	1000	11 a.	32	7.76	8.89	1 a.	5.22	11 a.	3.67
1026	1 a.	994	12 m.d.	32	7.57	8.36	1 a.	5.29	12 m.d.	3.07
1027	10 p.	999	12 m.d.	28	7.41	8.38	10 p.	5.51	11.34 a.	2.87
1027	Various.	999	12 m.d.	28	7.57	8.51	12 m.n.	5.33	12 m.d.	3.18
1027	1 a.	992	12 m.d.	35	7.46	8.52	1 a.	4.38	12 m.d.	4.14
1029	11.42 p.	979	11 a.	50	7.18	8.95	11.42 p.	3.59	11 a.	5.36
1038	7.29 p.	1004	11.43 a.	34	8.77	10.28	7.29 p.	7.06	11.43 a.	3.22
1045	4 and 5 p.	1010	0.10 p.	35	9.52	10.46	5 p.	7.10	11.33 a.	3.36
1039	2 and 3 a.	1009	11 a. to 1 p.	30	8.98	9.93	2 a.	6.88	10.42 a.	3.05
1035	6 p. to 12 mn.	1005	12 m.d.	30	8.50	9.38	11 p.	5.95	12 m.d.	3.43
1033	2 a.	1003	1 p.	30	8.45	9.12	2 a.	6.43	1 p.	2.69
1033	11 p. and 12 mn.	1005	12 m.d.	28	8.20	9.17	11 p.	6.12	12 m.d.	3.05
1036	7 p.	1018	11 a. to 1 p.	18	8.60	9.26	12 m.n.	6.64	11.20 a.	2.62
1035	2 a.	1014	12 m.d.	21	8.45	9.28	2 a.	7.02	11 a.	2.26
1024	4 p.	1003	12 m.d.	21	7.55	8.71	12 m.n.	5.37	12 m.d.	3.34
1029	4 p.	1005	12 m.d.	24	8.02	8.93	4 p.	6.25	10.25 a.	2.68
1019	Various.	983	11.31 a.	36	7.23	8.34	9 p.	3.85	11.31 a.	4.49
1026	4 p.	977	11.31 a.	49	7.36	8.68	4 p.	3.66	11.31 a.	5.02
1024	5 and 10 p.	991	1 p.	33	7.20	8.32	10 p.	4.63	1 p.	3.69
1027	5, 8, and 9 p.	994	12 m.d.	33	7.52	8.57	8 p.	4.53	12 m.d.	4.04
1026	11 p.	996	11 and 12 m.d.	30	7.53	8.39	3 and 11 p.	4.91	11 a.	3.48
1026	5 and 6 p.	1003	12 m.d.	23	7.66	8.42	11 p. and 12 mn.	5.90	12 m.d.	2.52
1032		1001		31	8.07	9.07		5.69		3.38

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

EASTERLY DECLINATION ($0^{\circ} 40' +$ the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	11'. 30	11'. 01	10'. 87	10'. 73	10'. 45	*10'. 16	10'. 30	11'. 58	12'. 86	*13'. 14	12'. 01	10'. 73
2-----	10. 58	10. 72	10. 58	10. 58	10. 58	10. 44	*10. 15	11. 43	12. 57	*13. 84	*13. 84	12. 42
3-----	10. 71	10. 57	10. 57	10. 43	10. 43	10. 28	*9. 86	10. 43	11. 56	*12. 41	11. 70	10. 99
4-----	10. 70	10. 56	10. 56	10. 42	10. 27	10. 13	*9. 85	10. 98	12. 40	*12. 97	12. 12	11. 27
5-----	10. 68	10. 63	10. 68	10. 54	10. 40	10. 11	*9. 97	10. 68	12. 10	13. 38	*13. 66	12. 67
6-----	10. 80	10. 66	10. 66	10. 66	10. 66	10. 52	*10. 23	10. 66	11. 65	*11. 94	11. 09	11. 65
7-----	10. 64	10. 64	10. 64	10. 50	10. 50	*10. 21	10. 36	10. 92	*12. 34	12. 20	11. 75	11. 49
8-----	11. 78	11. 92	11. 63	11. 21	11. 78	10. 92	*10. 78	11. 35	12. 20	*12. 34	11. 49	11. 21
9-----	11. 22	11. 08	11. 08	10. 93	10. 93	10. 79	*10. 65	11. 50	12. 64	*13. 35	13. 21	12. 07
10-----	11. 36	11. 36	11. 36	11. 22	11. 22	10. 93	*10. 79	11. 79	12. 50	*13. 49	13. 35	12. 07
11-----	11. 23	11. 37	11. 37	11. 23	10. 94	10. 80	*10. 38	10. 66	11. 94	12. 08	12. 08	12. 08
12-----	11. 37	11. 37	11. 37	11. 23	11. 09	10. 80	*10. 38	10. 80	11. 23	11. 65	11. 65	11. 94
13-----	11. 24	11. 38	11. 24	11. 24	11. 10	10. 67	*10. 24	10. 67	11. 52	12. 66	12. 80	12. 94
14-----	11. 24	11. 24	11. 24	11. 10	10. 95	10. 67	*9. 82	9. 96	10. 67	11. 24	11. 24	*12. 09
15-----	11. 38	11. 38	11. 24	11. 24	11. 24	11. 10	*10. 53	10. 81	11. 81	*12. 66	12. 52	12. 23
16-----	11. 11	11. 11	11. 11	10. 96	10. 82	*10. 68	*10. 68	11. 25	12. 10	12. 81	*13. 09	12. 38
17-----	11. 39	11. 39	11. 53	11. 53	11. 39	11. 39	*10. 82	11. 96	*12. 81	12. 67	12. 10	11. 96
18-----	11. 26	11. 26	11. 40	11. 40	11. 40	11. 40	11. 26	*11. 97	11. 83	11. 40	10. 55	*10. 26
19-----	11. 26	11. 12	11. 12	11. 12	10. 97	10. 97	*10. 83	11. 54	12. 11	*12. 54	12. 25	12. 11
20-----	10. 98	10. 98	10. 98	10. 84	10. 84	10. 70	*10. 13	*9. 99	*9. 99	10. 13	10. 56	10. 70
21-----	11. 28	11. 42	11. 28	11. 28	10. 99	*10. 71	*10. 71	10. 99	10. 85	11. 14	11. 70	*11. 85
22-----	11. 29	11. 15	11. 15	11. 00	10. 86	10. 72	9. 81	*9. 44	9. 73	9. 87	9. 73	10. 15
23-----	11. 43	11. 57	11. 57	11. 57	11. 57	11. 15	10. 86	10. 86	*10. 72	*10. 72	10. 86	11. 29
24-----	11. 43	11. 57	11. 57	11. 71	11. 86	11. 57	11. 71	11. 43	10. 72	10. 72	*10. 58	10. 86
25-----	11. 44	11. 44	11. 44	11. 44	11. 30	11. 44	11. 30	12. 01	11. 30	10. 59	*10. 45	*10. 45
26-----	11. 17	10. 88	11. 31	11. 59	11. 88	11. 88	12. 02	*12. 30	12. 16	11. 88	10. 74	*10. 31
27-----	11. 46	11. 46	11. 32	11. 60	11. 74	11. 32	*10. 75	10. 89	11. 03	11. 18	11. 03	11. 32
28-----	11. 61	11. 61	11. 61	11. 75	11. 75	11. 61	11. 33	11. 61	12. 04	12. 18	*12. 32	12. 04
Mean	11'. 19	11'. 18	11'. 16	11'. 11	11'. 07	10'. 86	*10'. 59	11'. 09	11'. 69	*12'. 04	11'. 79	11'. 55

HORIZONTAL FORCE (0.38 ... + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	095	096	097	096	096	099	103	107	114	121	131	*135
2-----	*093	098	097	097	098	101	109	113	129	136	*137	126
3-----	100	099	096	096	098	097	104	112	119	126	133	*138
4-----	*086	092	093	094	094	093	098	103	111	119	*124	122
5-----	102	102	104	100	100	100	103	113	121	130	131	131
6-----	099	095	094	093	*092	095	097	101	108	113	118	*120
7-----	109	109	108	107	109	110	111	120	134	137	*152	148
8-----	111	098	099	099	097	111	106	109	123	123	117	*125
9-----	*102	111	104	106	103	108	107	105	121	*124	122	117
10-----	113	*107	*107	108	*107	111	115	124	136	137	*142	139
11-----	120	119	117	121	118	117	120	127	136	141	142	*143
12-----	120	122	125	126	126	124	133	141	151	158	*161	147
13-----	*115	121	120	123	122	124	130	138	153	*162	*162	155
14-----	*122	124	125	124	123	125	134	144	163	174	180	*183
15-----	130	129	128	127	*125	126	129	141	155	166	170	*173
16-----	133	134	133	135	136	141	147	153	155	165	*181	178
17-----	129	126	127	125	125	126	127	130	139	150	162	*163
18-----	134	133	132	132	133	133	*131	138	145	159	162	165
19-----	141	141	137	*135	139	136	140	150	161	166	*167	164
20-----	144	141	142	140	138	141	141	149	160	166	174	*176
21-----	142	143	152	149	142	138	147	146	159	*167	160	156
22-----	*129	131	131	132	130	130	137	143	153	164	*166	*166
23-----	138	138	135	*133	*133	134	136	143	159	165	172	*174
24-----	144	139	141	141	139	141	144	163	180	189	*194	187
25-----	146	146	154	149	149	160	162	180	185	187	*196	195
26-----	146	144	148	141	145	146	151	164	180	*187	185	183
27-----	145	143	146	140	*138	141	145	150	166	184	190	*193
28-----	144	144	*143	*143	144	145	149	157	175	189	*197	194
Mean	123	122	123	122	121	122	127	134	146	154	*158	157

MAGNETIC OBSERVATIONS FOR FEBRUARY, 1902.

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EASTERLY DECLINATION ($0^\circ 40'$ + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
10'. 87	10'. 73	10'. 73	10'. 73	11'. 30	11'. 16	11'. 01	10'. 87	10'. 87	10'. 73	10'. 73	10'. 73	11'. 07
11. 00	10. 58	10. 58	10. 72	11. 00	10. 86	10. 86	11. 00	11. 00	10. 86	10. 72	10. 72	11. 15
10. 85	11. 14	11. 18	11. 18	11. 18	11. 14	10. 85	10. 99	10. 85	10. 85	10. 71	10. 71	10. 90
10. 42	10. 42	10. 13	10. 27	10. 70	10. 98	10. 84	10. 70	10. 70	10. 70	10. 70	10. 70	10. 81
11. 82	11. 25	10. 82	10. 68	10. 96	11. 25	10. 96	10. 82	10. 82	10. 82	10. 82	10. 82	11. 14
11. 80	10. 80	10. 80	10. 94	10. 94	10. 80	10. 80	10. 80	10. 80	10. 80	10. 66	10. 66	10. 91
11. 92	12. 06	12. 20	12. 06	12. 06	12. 06	11. 92	11. 78	11. 49	11. 49	11. 49	11. 63	11. 41
11. 21	11. 49	11. 78	11. 92	11. 92	12. 06	11. 78	11. 63	11. 63	11. 78	11. 49	11. 21	11. 60
12. 07	12. 07	11. 64	11. 08	11. 22	11. 22	11. 36	11. 50	11. 50	11. 50	11. 36	11. 36	11. 56
11. 50	11. 64	11. 93	11. 50	11. 36	11. 22	11. 36	11. 50	11. 36	11. 22	11. 22	11. 22	11. 60
*12. 51	12. 22	11. 94	11. 51	11. 51	11. 80	11. 80	11. 65	11. 80	11. 51	11. 37	11. 37	11. 55
*12. 08	11. 94	11. 80	11. 80	11. 94	11. 80	11. 65	11. 51	11. 51	11. 37	11. 29	11. 37	11. 45
*13. 23	12. 52	11. 95	11. 52	11. 52	11. 66	11. 66	11. 52	11. 38	11. 24	11. 24	11. 24	11. 60
*12. 09	11. 38	10. 81	11. 10	11. 95	11. 95	11. 52	11. 38	11. 24	11. 24	11. 24	11. 24	11. 19
12. 09	11. 81	10. 81	11. 24	11. 81	11. 66	11. 24	11. 24	11. 10	11. 10	11. 10	11. 10	11. 43
11. 25	11. 25	11. 39	11. 96	11. 96	11. 82	11. 67	11. 53	11. 39	11. 25	11. 39	11. 39	11. 51
11. 53	11. 92	11. 96	12. 10	12. 24	12. 10	11. 96	11. 53	11. 25	11. 11	11. 11	11. 25	11. 71
10. 69	10. 97	11. 40	11. 40	11. 54	*11. 97	*11. 97	11. 68	11. 40	11. 26	11. 26	11. 26	11. 34
11. 68	11. 40	10. 97	10. 97	11. 40	11. 54	11. 54	11. 54	11. 40	11. 12	11. 12	11. 12	11. 41
10. 56	10. 70	10. 56	10. 56	10. 84	11. 41	*11. 84	*11. 84	*11. 84	11. 41	11. 55	11. 55	10. 90
11. 14	11. 14	*11. 85	*11. 85	*11. 85	*11. 85	11. 56	11. 42	11. 42	11. 42	11. 28	11. 28	11. 34
10. 44	11. 15	*12. 00	*12. 00	11. 57	11. 43	11. 57	11. 43	11. 29	11. 29	11. 29	11. 29	10. 90
12. 00	12. 28	12. 85	12. 99	11. 86	11. 15	11. 29	11. 29	11. 43	11. 43	11. 29	11. 43	11. 50
11. 00	11. 43	12. 00	*12. 14	*12. 14	12. 00	11. 86	11. 86	11. 71	11. 57	11. 29	11. 29	11. 50
10. 87	12. 01	*12. 29	12. 29	12. 15	12. 15	11. 87	11. 58	11. 44	11. 30	11. 01	11. 16	11. 45
10. 60	10. 88	11. 45	11. 88	12. 16	12. 02	11. 88	11. 88	11. 73	11. 59	11. 31	11. 31	11. 53
10. 89	11. 03	12. 17	12. 31	*12. 45	*12. 45	12. 17	12. 03	11. 89	11. 74	11. 60	11. 60	11. 56
11. 19	*10. 76	11. 19	11. 61	11. 90	12. 04	11. 75	11. 61	11. 47	11. 33	11. 19	11. 05	11. 61
11'. 40	11'. 39	11'. 47	11'. 51	11'. 62	11'. 63	11'. 52	11'. 43	11'. 35	11'. 25	11'. 17	11'. 18	11'. 34

HORIZONTAL FORCE (0.38 ... + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
134	127	119	108	104	101	101	101	101	099	096	*093	107
119	111	100	094	094	096	096	095	094	095	097	096	105
134	131	116	104	099	099	094	090	080	*079	081	084	105
117	111	103	097	095	093	094	091	094	098	101	102	101
*132	127	118	116	112	106	102	100	102	*097	098	*097	110
115	110	108	105	106	108	113	113	107	108	107	107	105
146	138	128	115	106	100	104	095	*091	100	108	093	116
*125	124	110	097	095	100	092	*088	089	098	105	105	106
115	114	120	115	114	113	110	111	110	110	110	112	112
129	123	119	113	109	110	115	117	119	118	114	115	119
140	135	131	126	122	125	122	111	*105	112	114	116	124
142	136	133	125	122	128	120	115	118	114	113	*111	130
149	143	135	124	119	120	119	119	117	116	117	120	130
179	162	146	136	130	125	*122	*122	123	123	125	128	139
165	155	138	132	132	131	132	130	130	131	128	130	139
171	162	156	149	133	129	124	125	124	*115	123	121	143
162	157	148	136	131	125	122	*121	122	125	125	130	135
163	164	160	155	148	144	140	141	141	140	139	138	145
159	154	149	143	139	138	139	*135	*135	137	137	137	145
167	159	152	142	137	131	128	*127	134	133	137	143	146
145	144	144	142	135	122	116	112	*111	130	126	125	140
159	154	149	142	139	141	141	140	139	140	140	136	143
165	155	149	140	143	147	144	140	138	139	138	138	146
173	166	159	153	148	147	146	145	143	139	*138	139	154
188	173	150	144	140	137	137	*136	137	138	142	144	157
172	163	155	144	144	141	*136	143	139	137	137	140	153
188	180	170	161	154	151	148	145	145	143	144	144	156
178	169	157	154	151	151	153	151	152	154	152	155	158
151	145	137	129	125	124	122	120	*119	120	121	121	131

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

VERTICAL FORCE (0.1 . . . + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	1024	1023	1021	1020	1019	1017	1020	1023	1021	1016	1003	*0996
2	1026	1026	1024	1023	1021	1021	1023	1027	1026	1020	1007	*0993
3	*1027	*1027	1024	1023	1020	1020	1019	1020	1020	1017	*1011	*1011
4	1024	1023	1023	1023	1023	1023	1023	1024	*1029	1023	1017	1013
5	1026	1025	1025	1023	1022	1020	1019	1019	*1029	*1029	1020	1015
6	1026	*1027	*1027	1024	1021	1020	1018	1021	1020	1013	1010	1011
7	1020	1019	1019	1019	1017	1016	1016	1019	1017	1010	1010	*1009
8	1020	1021	1020	1020	1018	1015	1014	1017	1017	1015	1010	*1008
9	*1017	1016	1014	1014	1012	1010	1009	1010	1013	1009	*1004	*1004
10	1011	1010	1008	1008	1008	1005	1007	1008	1007	1004	0997	*0994
11	1010	1010	1010	1007	1006	1004	1001	1004	1003	*1000	1001	1003
12	1011	1011	1011	1011	1010	1009	1009	1009	1009	1007	*1004	1006
13	1032	1035	1033	1035	1035	1033	1030	1035	*1036	1029	1010	1009
14	1035	1036	1037	1039	1037	1036	1035	1042	*1043	1033	1019	1023
15	1040	1039	1039	1037	1037	1035	1033	1040	1040	1033	1023	1009
16	1040	1040	1039	1039	1042	1042	1042	*1043	1042	1033	1019	1000
17	1040	1039	1039	1037	1039	1039	1047	1056	*1060	1036	1022	1010
18	1043	1043	1045	1043	1045	1042	1042	*1047	1037	1026	1012	*1006
19	1045	1043	1042	1042	1042	1040	1039	1040	1036	1026	1018	*1015
20	*1049	1047	1047	1046	1043	1043	1046	1047	1036	1030	1026	*1015
21	1041	*1050	1047	1043	1043	1043	*1050	1046	1037	1037	1031	1034
22	1046	1044	1044	1044	1043	1040	1038	1034	1031	1030	*1026	1027
23	1041	1041	1040	1040	1041	1041	1044	*1047	1041	1037	1034	*1030
24	1037	1038	1040	*1041	*1041	1040	1040	1036	1023	1017	1011	*1010
25	1037	1037	1038	1040	*1041	1040	1037	1037	1010	0998	*0997	1000
26	1033	1034	*1040	1037	1037	1036	1037	1031	1018	1004	*0991	0994
27	1034	1034	1037	1036	1037	1040	1043	*1051	1044	1037	1030	1021
28						1051	1051	1051	1050	1050	1047	*1044
Mean	1031	1031	1031	1030	1030	1029	1030	*1032	1028	1022	1015	*1011

EXTREME VALUES.

Easterly declination.						Horizontal force.				
Day.	Maxima.	Hour.	Minima.	Hour.	Daily range.	Maxima.	Hour.	Minima.	Hour.	Daily range.
1	0 53.14	10 a.	0 50.02	6.27 a.	3.12	0.38135	12 m. d.	0.38093	12 m. n.	0.00042
2	53.84	10 and 11 a.	50.15	7 a.	3.69	142	10.38 a.	93	1 a.	49
3	52.41	10 a.	49.86	7 a.	2.55	140	11.38 a.	79	10 p.	61
4	52.97	10 a.	49.85	7 a.	3.12	124	11 a.	84	0.30 a.	40
5	53.80	10.33 a.	49.97	7 a.	3.83	138	11.32 a.	97	10p.and 12m.n.	41
6	51.94	10 a.	50.23	7 a.	1.71	120	12 m. d.	92	5 a.	28
7	52.34	9 a.	50.21	6 a.	2.13	152	11 a.	91	9 p.	61
8	52.34	10 a.	50.78	7 a.	1.56	131	1.15 p.	86	8.12 p.	45
9	53.49	10.16 a.	50.51	6.27 a.	2.98	129	9.48 a.	102	1 a.	27
10	53.63	10.10 a.	50.65	6.38 a.	2.98	142	11 a.	107	2, 3 and 5 a.	35
11	52.51	1 p.	50.38	7 a.	2.13	147	11.21 a.	105	9 p.	42
12	52.08	1 p.	50.23	7.21 a.	1.85	161	11 a.	108	11.35 p.	53
13	53.23	1 p.	50.24	7 a.	2.99	162	10 and 11 a.	113	0.27 a.	49
14	52.09	12 m.d.and 1 p.	49.82	7 a.	2.27	185	11.24 a.	120	0.06 a.	65
15	52.66	10 a.	50.53	7 a.	2.13	173	12 m. d.	125	5 a.	48
16	53.24	10.26 a.	50.68	6 and 7 a.	2.56	181	11 a.	115	10 p.	66
17	52.81	9 a.	50.82	7 a.	1.99	163	12 m. d.	121	8 p.	42
18	51.97	Various	50.26	12 m. d.	1.71	167	11.40 a.	131	7 a.	36
19	52.54	10 a.	50.83	7 a.	1.71	167	11 a.	135	Various	32
20	51.84	7 to 9 p.	49.99	8 and 9 a.	1.85	176	12 m. d.	127	8 p.	49
21	51.85	Various	50.57	5.55 a.	1.28	167	10 a.	111	9 p.	56
22	52.00	3 and 4 p.	49.44	8 a.	2.56	166	11 and 12 m. d.	127	0.01 a.	39
23	52.99	4 p.	50.72	9 and 10 a.	2.27	175	11.14 a.	133	4 and 5 a.	42
24	52.14	4 and 5 p.	50.58	11 a.	1.56	194	11 a.	138	11 p.	56
25	52.43	3.05 p.	50.16	11.40 a.	2.27	201	11.33 a.	134	8.30 p.	67
26	52.30	8 a.	50.31	12 m. d.	1.99	187	10 a.	136	7 p.	51
27	52.45	5 and 6 p.	50.75	7 a.	1.70	193	12 m. d.	138	5 a.	55
28	52.32	11 a.	50.76	2 p.	1.56	197	11 a.	143	3 and 4 a.	54
Mean	52.62		50.33		2.29	161		114		47

MAGNETIC OBSERVATIONS FOR FEBRUARY, 1902.

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VERTICAL FORCE (0.1 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
1000	1007	1017	1021	*1027	*1027	*1027	*1027	*1027	*1027	1026	*1027	1019
0994	1003	1014	1023	1026	1027	*1029	*1029	*1029	1027	1027	1027	1020
1013	1017	1021	1023	1024	1023	1024	1024	1024	1024	1023	1021	1017
*1011	1016	1020	1024	1027	1026	1026	1027	1027	1027	1027	1027	1023
*1013	1015	1018	1022	1025	1026	1028	*1029	*1029	1028	1028	1028	1023
*1006	*1006	1016	1021	1023	1024	1024	1023	1023	1024	1023	1021	1020
*1009	1012	1015	1020	1022	*1025	*1025	1023	1023	*1025	1020	1020	1018
1014	1017	1018	1023	*1024	*1024	*1024	*1024	*1024	1021	1020	1018	1019
1010	1014	1014	1012	1013	1014	1014	1014	1014	1014	1013	1013	1012
0998	1005	1010	1012	*1014	*1014	*1014	1012	*1014	1012	1011	1011	1008
1003	1007	1007	1010	*1011	*1011	*1011	*1011	*1011	*1011	*1011	*1011	1007
1009	1010	1013	1015	1017	1016							1010
1007	*1002	1006	1015	1022	1025	1027	1027	1029	1030	1033	1035	1025
1013	*1009	1019	1032	1040	1039	1039	1040	1040	1040	1040	1040	1034
1005	*1002	1007	1029	1039	1039	1039	1037	1037	1040	1039	*1042	1032
*0999	1005	1020	1030	1032	1035	1033	1035	1035	1037	1040	1039	1032
*1007	1023	1035	1039	1042	1039	1040	1040	1042	1040	1040	1042	1037
1020	1036	1040	1037	1040	1040	1040	1040	1040	1045	1045	1045	1037
1024	1029	1036	1036	1036	1035	1037	1039	1037	1042	*1045	*1045	1036
1016	1020	1025	1033	1039	1037	1040	1040	1039	1043	1043	1045	1037
*1030	1046	1048	1041	1038	1038	1038	1040	1041	1046	1044	1044	1041
1036	*1057	1054	1046	1040	1038	1040	1040	1040	1041	1043	1041	1040
1033	1033	1040	1038	1034	1033	1034	1036	1037	1037	1037	1038	1038
1013	1027	1037	*1041	1038	1036	1034	1033	1034	1033	1036	1038	1032
1011	1026	1036	1038	1033	1034	1033	1030	1031	1031	1033	1031	1028
1003	1016	1028	1033	1036	1033	1031	1031	1028	1028	1031	1034	1026
*1008	*1008	1017	1023	1028	1030	1028	1027	1028	1028	1030	1030	1030
*1044	1048	1053	1054	1057	1060							1051
1012	1018	1024	1028	1030	1030	1030	1030	1030	1031	1031	1031	1027

EXTREME VALUES.

Vertical force.					Northerly dip.					
Maxima.	Hour.	Minima.	Hour.	Daily range.	Daily mean.	Maxima.	Hour.	Minima.	Hour.	Daily range.
0.11027	Various.	0.10996	12 m.d.	0.00031	16 07.66	16 08.67	12 m.n.	16 05.08	12 m.d.	3.59
29	7 to 9 p.	993	12 m.d.	36	7.80	8.81	9 p.	5.04	12 m.d.	3.77
27	1 and 2 a.	1011	11 and 12 m.d.	16	7.54	8.75	10 p.	6.20	11.38 a.	2.55
29	9 a.	1011	1 p.	18	8.14	8.72	8 p.	6.76	1 p.	1.96
29	Various.	1013	1 p.	16	7.92	8.67	8 p.	6.56	1 p.	2.11
27	2 and 3 a.	1006	1 and 2 p.	21	7.80	8.64	3 a.	6.39	1 p.	2.25
26	8.29 p.	1007	11.41 a.	19	7.36	8.38	9 p.	5.77	11.41 a.	2.61
24	5 to 9 p.	1008	12 m.d.	16	7.68	8.58	8.12 p.	6.31	12 m.d.	2.27
17	1 a.	1004	11 and 12 m.d.	13	6.96	7.62	1 a.	6.05	11 a.	1.57
14	Various.	994	12 m.d.	20	6.46	7.20	5 p.	4.81	12 m.d.	2.39
11	Various.	1000	10 a.	11	6.25	7.05	9 p.	5.26	10 a.	1.79
		1004	11 a.		6.36			5.12	11 a.	
36	9 a.	1002	2 p.	34	7.61	8.68	12 m.n.	5.38	2 p.	3.30
43	9 a.	1009	2 p.	34	8.14	9.05	8 p.	5.51	2 p.	3.54
42	12 m.n.	1002	2 p.	40	7.97	9.02	12 m.n.	5.10	2 p.	3.92
45	8.26 a.	996	1.27 p.	49	7.88	8.97	10 p.	4.38	12 m.d.	4.59
60	9 a.	1007	1 p.	53	8.48	10.30	9 a.	5.34	1 p.	4.96
47	8 a.	1006	12 m.d.	41	8.25	9.24	8 a.	5.14	11.40 a.	4.10
45	Various.	1015	12 m.d.	30	8.16	9.10	11 p. and 12 m.n.	5.96	12 m.d.	3.14
49	1 a.	1015	12 m.d.	34	8.22	9.27	1 a.	5.68	12 m.d.	3.59
50	2 and 7 a.	1026	0.38 p.	24	8.70	9.40	9 p.	7.23	0.38 p.	2.17
57	2 p.	1024	11.17 a.	33	8.54	9.69	2 p.	6.66	11.17 a.	3.03
47	8 a.	1030	12 m.d.	17	8.30	9.13	8 a.	7.12	12 m.d.	2.01
41	Various.	1009	0.30 p.	32	7.62	8.72	5 a.	4.91	11 a.	3.81
46	5.26 a.	994	11.30 a.	52	7.21	8.80	5.26 a.	3.57	11.30 a.	5.23
40	3 a.	991	11 a.	49	7.14	8.42	3 a.	3.46	11 a.	4.96
51	8 a.	1006	1.32 p.	45	7.40	9.29	8 a.	4.76	1.32 p.	4.53
		1044	12 m.d. and 1 p.		9.10			7.65	12 m.d.	
37		8		30	7.75	8.78		5.61		3.22

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

EASTERLY DECLINATION ($0^{\circ} 40' +$ the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	10'.91	10'.76	10'.62	10'.48	10'.34	9'.91	9'.77	9'.77	9'.77	*9'.63	9'.91	9'.63
2-----	10.21	10.35	10.35	10.35	10.21	10.06	9.92	9.92	9.78	9.78	9.64	*9.21
3-----	10.36	10.50	10.50	10.64	10.50	10.36	*10.22	10.36	10.78	10.64	11.07	10.93
4-----	10.59	10.59	10.45	10.45	10.31	10.17	*10.02	10.17	11.02	11.30	*12.15	11.16
5-----	10.26	10.26	10.26	10.26	10.12	9.83	*9.26	9.69	9.69	10.12	10.97	10.40
6-----	10.35	10.35	10.35	10.21	10.21	10.21	10.49	10.63	10.21	*10.07	10.21	10.35
7-----	10.16	10.30	10.16	10.16	9.87	9.73	9.59	9.59	9.59	9.59	9.45	*8.45
8-----	9.97	9.97	9.97	9.97	9.97	10.11	10.11	10.11	9.68	*8.97	*8.97	9.54
9-----	10.20	10.06	10.34	10.34	10.20	9.92	10.48	10.77	9.92	*9.49	*9.49	*9.49
10-----	10.15	10.15	10.15	10.15	10.15	10.15	10.01	10.01	9.72	9.44	9.01	*8.02
11-----	10.24	10.24	10.38	10.38	10.53	10.53	11.09	*12.09	10.95	9.53	9.25	*8.82
12-----	10.45	10.45	10.45	10.59	10.59	10.59	*11.16	11.01	10.16	9.31	8.88	*8.32
13-----	10.36	10.50	10.50	10.50	10.50	10.50	10.78	10.92	10.50	9.65	9.50	8.37
14-----	10.27	10.27	10.27	10.27	10.27	10.27	10.55	*10.98	*10.98	10.55	9.27	8.70
15-----	10.46	10.46	10.46	10.46	10.32	10.03	10.18	11.17	*11.60	11.31	10.60	9.75
16-----	10.37	10.37	10.37	10.37	10.37	10.37	10.65	*11.79	11.36	10.65	10.37	*10.23
17-----	10.71	10.71	10.71	10.56	10.56	10.56	11.56	*11.98	11.56	10.56	10.14	10.00
18-----	10.62	10.62	10.62	10.33	10.62	10.33	10.33	10.47	10.90	*11.18	10.76	9.91
19-----	10.67	10.67	10.67	10.81	10.53	10.38	11.09	*11.66	11.52	11.52	11.09	10.53
20-----	11.00	11.15	11.15	11.00	10.86	*10.58	10.72	11.15	11.15	11.29	11.15	*10.58
21-----	10.91	10.77	10.63	10.77	10.77	10.63	11.20	11.48	10.49	9.92	9.49	*9.21
22-----	10.82	10.97	10.97	10.97	10.97	10.82	11.68	*12.39	11.53	11.25	10.54	9.97
23-----	10.45	10.45	10.59	10.59	10.45	10.31	11.02	*11.73	11.59	11.16	10.17	9.60
24-----	10.50	10.50	10.50	10.36	10.36	10.50	10.93	11.50	11.35	*11.78	11.07	9.65
25-----	10.41	10.41	10.27	10.13	9.99	9.99	10.27	10.84	*10.98	10.70	9.56	9.28
26-----	10.75	10.89	10.89	10.75	10.61	10.18	10.61	*11.17	11.03	10.04	9.47	8.62
27-----	10.37	10.51	10.51	10.66	10.66	10.66	10.94	*11.23	*11.23	10.80	9.95	8.95
28-----	10.57	10.57	10.57	10.57	10.57	10.43	10.71	*11.56	*11.56	11.42	10.85	9.43
29-----	10.51	10.51	10.51	10.51	10.37	9.80	10.08	10.94	11.65	*11.93	10.51	8.52
30-----	10.45	10.45	10.45	10.45	10.31	10.31	10.59	11.59	12.01	11.59	9.74	8.18
31-----	10.25	10.25	10.25	10.11	10.11	9.97	10.68	*11.96	11.96	11.10	9.26	8.41
Mean	10'.45	10'.48	10'.48	10'.45	10'.39	10'.26	10'.54	10'.99	10'.85	10'.52	10'.08	9'.43

HORIZONTAL FORCE ($0.38 \dots +$ the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	157	159	162	159	*154	160	160	172	187	201	201	*202
2-----	156	153	152	152	153	152	154	164	179	190	*204	202
3-----	151	150	152	149	*145	*145	154	169	185	194	*200	199
4-----	156	154	153	151	*150	151	158	165	184	200	*209	205
5-----	164	163	159	*157	158	160	165	173	189	203	*208	203
6-----	166	168	166	165	166	163	170	178	193	200	*207	199
7-----	166	166	164	*156	159	158	169	160	184	201	*209	*209
8-----	161	161	163	161	162	164	172	193	209	*221	219	207
9-----	151	162	167	164	155	149	157	167	185	197	*201	196
10-----	151	*150	156	153	155	154	163	180	197	210	*212	205
11-----	156	158	155	*152	*152	154	163	180	206	225	*229	215
12-----	184	182	183	176	174	157	174	186	209	*211	205	172
13-----	153	159	158	157	156	157	161	176	198	216	*217	214
14-----	*151	155	155	*151	153	153	158	176	197	214	*219	216
15-----	163	162	167	164	160	158	165	180	203	219	*225	220
16-----	157	158	164	164	161	161	166	179	199	213	*223	215
17-----	152	153	152	*151	152	156	165	179	191	205	*214	204
18-----	160	160	170	164	165	168	170	183	193	202	*211	*211
19-----	151	*150	*150	151	153	157	162	176	194	213	*224	218
20-----	*159	*159	160	165	165	167	179	192	212	231	*238	227
21-----	162	163	161	161	165	169	176	191	208	217	*222	215
22-----	160	160	162	162	164	165	170	180	196	206	*211	205
23-----	*154	156	156	157	161	160	170	181	198	210	*214	208
24-----	166	166	166	164	167	166	172	190	212	246	*250	247
25-----	153	158	159	153	156	*150	164	170	190	*202	193	194
26-----	159	159	159	163	160	161	163	187	218	240	*241	227
27-----	151	*150	152	153	159	160	166	182	202	216	*220	214
28-----	167	169	166	167	165	166	169	181	205	222	*232	228
29-----	163	162	*160	162	163	166	168	180	200	220	234	*235
30-----	176	172	170	172	171	170	176	185	204	226	*241	235
31-----	168	169	167	167	*165	167	172	184	210	235	*243	234
Mean	159	160	161	159	159	159	166	179	198	213	*219	212

MAGNETIC OBSERVATIONS FOR MARCH, 1902.

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EASTERLY DECLINATION (0° 40' + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
9'.63	9'.77	10'.48	*11'.05	*11'.05	10'.91	10'.91	10'.62	10'.34	10'.34	10'.20	10'.05	10'.29
9.64	10.06	10.35	10.63	*11.06	10.92	10.77	10.63	10.35	10.35	10.35	10.35	10.22
10.78	11.07	11.07	11.21	*11.35	10.93	10.78	10.64	10.50	10.36	10.36	10.50	10.68
10.17	10.45	10.31	10.31	10.31	10.45	10.45	10.45	10.31	10.31	10.31	10.31	10.52
9.83	9.83	9.98	10.54	*11.11	10.83	10.54	10.40	10.12	10.12	10.12	10.26	10.20
10.49	10.63	*10.78	*10.78	10.35	*10.07	10.21	10.21	10.21	10.21	10.21	10.21	10.33
8.74	9.31	9.87	10.58	*11.01	10.73	10.58	10.16	10.16	10.16	10.16	10.02	9.92
9.40	9.68	9.97	*10.82	*10.82	10.53	10.39	10.39	10.11	10.25	10.25	10.25	10.01
9.63	9.77	10.77	*11.05	*11.05	10.63	10.34	10.20	10.20	10.20	10.06	10.20	10.20
8.59	9.30	10.29	*10.72	*10.72	10.15	10.15	10.15	10.15	10.15	10.15	10.15	9.91
*8.82	9.82	10.95	10.95	11.09	10.81	10.81	10.81	10.67	10.67	10.67	10.53	10.44
9.31	10.30	10.73	10.87	11.01	10.73	10.73	10.59	10.45	10.30	10.30	10.30	10.32
*8.08	9.08	9.65	10.50	*11.07	10.64	10.50	10.50	10.50	10.50	10.36	10.36	10.18
*8.14	8.56	9.41	10.27	10.69	10.69	10.55	10.55	10.55	10.41	10.41	10.41	10.14
*9.18	9.89	10.32	10.74	10.89	10.74	10.60	10.46	10.46	10.46	10.46	10.46	10.48
*10.23	10.51	10.94	11.36	11.36	10.94	10.94	10.80	10.80	10.65	10.51	10.80	10.71
10.00	9.85	9.71	10.28	10.71	10.85	10.85	10.85	10.85	10.85	10.71	10.71	10.66
*9.34	*9.34	9.62	10.62	11.04	10.90	10.90	10.90	10.90	10.90	10.76	10.76	10.53
9.96	9.82	10.10	10.81	10.95	10.53	10.81	10.95	10.95	10.81	10.95	10.95	10.78
*10.58	11.29	12.14	*12.71	12.00	11.29	11.00	10.86	10.72	10.72	10.72	10.86	11.01
9.64	9.92	11.06	11.48	*11.62	11.20	10.77	10.77	10.77	10.63	10.49	10.91	10.65
*9.83	10.26	10.68	11.25	11.25	10.97	10.82	10.82	10.68	10.54	10.40	10.40	10.87
*8.60	8.89	9.74	10.88	11.30	11.16	10.19	10.45	10.45	10.45	10.31	10.45	10.46
*8.80	9.51	9.93	10.93	11.07	10.93	10.50	10.64	10.79	10.50	10.64	10.64	10.58
*9.13	9.56	9.13	10.55	*10.98	10.84	10.70	10.55	10.41	10.41	10.41	10.27	10.29
*7.91	8.19	9.61	10.75	*11.17	11.03	10.75	10.75	10.61	10.46	10.46	10.46	10.30
*7.96	8.39	9.24	10.37	10.80	10.56	10.51	10.51	10.51	10.51	10.51	10.51	10.29
*8.86	*8.86	9.43	10.28	10.71	10.57	10.57	10.57	10.57	10.57	10.57	10.57	10.46
*7.53	7.53	8.24	10.08	11.08	10.79	10.51	10.51	10.51	10.51	10.51	10.51	10.17
*7.90	8.18	9.32	10.45	10.59	10.45	10.45	10.45	10.45	10.31	10.31	10.31	10.22
*7.55	8.55	9.83	10.54	11.39	10.82	10.39	10.25	10.25	10.25	10.11	10.11	10.18
*9'.17	9'.55	10'.12	10'.79	*11'.02	10'.76	10'.61	10'.56	10'.49	10'.45	10'.41	10'.44	10'.39

HORIZONTAL FORCE (0.38 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
190	178	172	166	161	157	157	160	158	155	156	*154	168
192	180	169	160	154	146	146	146	146	*145	147	150	162
190	182	172	161	158	155	153	151	150	150	152	152	163
191	176	169	161	159	159	160	160	159	157	160	162	167
194	185	170	165	164	166	166	164	164	163	164	164	172
186	172	163	160	*159	160	*159	*159	160	162	162	164	171
202	190	179	173	167	164	162	158	158	157	158	158	172
189	171	163	153	150	156	157	154	150	146	*143	147	170
183	176	162	158	157	157	153	150	149	*148	149	*148	164
189	172	166	162	163	161	160	161	160	157	156	155	169
202	186	171	166	167	169	166	166	163	163	177	183	176
171	156	*146	150	153	151	153	150	152	153	152	153	169
205	196	178	170	166	159	154	154	153	153	151	*149	171
200	188	177	167	165	164	170	169	167	165	163	162	173
210	194	182	170	163	161	168	167	167	164	160	*155	177
202	190	180	168	170	167	170	165	162	159	154	*151	175
199	183	175	168	162	162	158	154	152	152	159	157	169
198	190	184	180	175	171	167	167	165	160	158	*155	176
211	196	188	175	171	170	166	162	164	164	164	160	175
210	198	190	183	180	175	175	169	168	164	163	161	187
202	195	181	177	175	171	169	169	169	166	*154	156	179
193	182	181	174	166	166	166	163	161	160	156	*153	173
200	192	182	177	176	176	178	173	175	176	168	167	179
242	225	207	168	155	144	157	158	*139	140	167	145	182
188	184	177	172	159	160	155	161	161	163	161	164	169
211	193	181	168	162	163	159	156	157	156	154	*147	177
203	191	184	177	172	167	166	163	164	164	163	163	175
217	203	192	179	172	168	168	168	166	165	*161	*161	182
217	205	193	181	173	172	170	168	166	169	170	170	182
222	208	193	185	177	174	173	172	170	168	167	*165	186
212	198	191	187	179	176	175	176	175	176	175	173	186
201	188	178	170	165	163	163	162	160	159	159	*158	174

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

VERTICAL FORCE (0.1 . . . + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1						1077	1075	1072	1069	1064	*1057	*1057
2	1081	1081	1080	1079	1078	1078	1076	1074	1066	*1061	1064	*1061
3	1080	1080	1080	1080	1079	1078	1078	1077	1073	1067	1064	*1057
4	*1079	1078	1077	1076	1075	1075	1077	*1079	*1079	1071	1064	*1058
5	*1080	1079	1078	1078	1076	1074	1077	1076	1066	1063	1056	*1027
6	1061	1060	1060	1059	1060	1058	1058	1055	1046	1037	*1036	1037
7	1063	1063	1059	1059	1058	1057	1055	1053	1045	1037	1035	*1031
8	1065	1065	1065	1065	1065	1064	1064	1060	1055	1049	*1045	1051
9	1073	1070	1072	1069	1071	1069	1068	1066	1056	*1050	1054	1055
10	1074	1075	1075	1074	1074	1073	1073	1069	1059	1050	*1047	1048
11	1077	1078	1078	1076	1075	1074	1077	1065	1045	*1039	1041	1051
12	1077	1078	1078	1079	1076	1079	1082	1068	1054	*1046	1048	1057
13	1080	1081	1080	1080	1079	1078	1077	1072	1057	1048	*1047	1050
14	1079	*1080	1078	1076	1077	1076	1076	1071	1060	1052	*1044	1046
15	1080	1080	1079	1076	1075	1074	1079	1082	1078	1063	1055	*1052
16	1080	1079	1079	1076	1076	1078	1079	1077	1062	*1058	*1058	1059
17	1082	1082	1080	1079	1078	1079	1080	1073	1059	*1055	1058	1059
18	1085	1084	1083	1083	1081	1080	1082	1082	1078	1077	*1071	*1071
19	1085	1084	1082	1081	1080	1081	1079	1074	1067	1061	1057	*1056
20	1087	1087	1085	1085	1085	1083	1084	1081	1077	1074	1070	*1069
21	1094	1093	1092	1092	1090	1089	1089	1087	1074	*1072	1075	1085
22	*1114	1111	1109	1107	1106	1105	1104	1098	1087	1084	*1082	1083
23	1102	1101	1101	1100	1099	1098	1099	1094	1087	*1079	*1079	1081
24	1106	1105	1103	1103	1101	1099	1097	1095	1088	1087	1081	*1080
25	1102	1099	1101	1098	1097	1096	1096	1095	1088	1083	*1079	1085
26	1105	1105	1106	1105	1102	1100	1100	1097	1087	*1076	1077	1083
27	1101	1100	1100	1098	1098	1097	1096	1093	1084	*1079	*1079	1080
28	1103	1103	1102	1100	1099	1096	1099	1096	1090	1081	1077	*1074
29	1098	1095	1094	1092	1091	1090	1095	1097	1089	1082	1072	*1068
30	1099	1096	1096	1094	1091	1088	1088	1086	1082	1069	*1061	*1061
31	1093	1092	1092	1091	1090	1088	1091	1088	1078	1067	*1061	1064
Mean	1086	1085	1085	1084	1083	1082	1082	1079	1070	1064	*1061	*1061

EXTREME VALUES.

Easterly declination.						Horizontal force.				
Day.	Maxima.	Hour.	Minima.	Hour.	Daily range.	Maxima.	Hour.	Minima.	Hour.	Daily range.
1	0 51.19	4.20 p.	0 49.63	10 a.	1.56	0.38207	11.31 a.	0.38154	5 a. and 12 m. n.	0.00053
2	51.06	5 p.	49.21	12 m. d.	1.85	206	11.31 a.	145	10 p.	61
3	51.35	5 p.	50.22	7 a.	1.13	204	11.41 a.	145	5 and 6 p.	59
4	52.15	11 a.	50.02	7 a.	2.13	209	11 a.	150	5 a.	59
5	51.11	5 p.	49.26	7 a.	1.85	208	11 a.	157	4 a.	51
6	50.78	3 and 4 p.	49.92	9.18 a.	0.86	207	11 a.	159	5, 7, and 8 p.	48
7	51.01	5 p.	48.45	12 m. d.	2.56	209	11 and 12 m. d.	156	4 a.	53
8	51.10	4.43 p.	48.97	10 and 11 a.	2.13	221	10 a.	143	11 p.	78
9	51.34	4.32 p.	49.49	10 a. to 12 m. d.	1.85	203	11.08 a.	148	10 p. and 12 m. n.	55
10	50.72	4 and 5 p.	47.87	0.01 p.	2.85	212	11 a.	150	2 a.	62
11	52.09	8 a.	48.82	12 m. d. and 1 p.	3.27	231	10.24 a.	152	4 and 5 a.	79
12	51.16	7 a.	48.32	12 m. d.	2.84	211	10 a.	146	3 p.	65
13	51.07	5 p.	48.08	1 p.	2.99	217	11 a.	149	12 m. n.	68
14	50.98	8 and 9 a.	48.14	1 p.	2.84	219	11 a.	151	1 and 4 a.	68
15	51.60	9 a.	49.18	1 p.	2.42	225	11 a.	155	12 m. n.	70
16	51.79	8 a.	50.23	12 m. d. and 1 p.	1.56	228	10.39 a.	151	12 m. n.	77
17	51.98	8 a.	49.71	12 m. d. and 1 p.	2.27	214	11 a.	151	4 a.	63
18	51.18	10 a.	49.34	1 and 2 p.	1.84	211	11 and 12 m. d.	155	12 m. n.	56
19	51.66	8 a.	49.82	2 p.	1.84	224	11 a.	150	2 and 3 a.	74
20	52.71	4 p.	50.30	0.30 p.	2.41	238	11 a.	159	1 and 2 a.	79
21	51.62	5 p.	49.07	11.36 a.	2.55	222	11 a.	150	11.05 p.	72
22	52.39	8 a.	49.83	1 p.	2.56	211	11 a.	153	12 m. n.	58
23	51.73	8 a.	48.46	1.15 p.	3.27	214	11 a.	154	1 a.	60
24	51.92	10.03 a.	48.80	1 p.	3.12	250	11 a.	130	10.28 p.	120
25	50.98	9 a. and 5 p.	48.99	0.47 p.	1.99	206	10.41 a.	147	0.01 a.	59
26	51.32	8.15 a.	47.77	1.10 p.	3.55	245	10.34 a.	147	12 m. n.	98
27	51.23	8 and 9 a.	47.96	1 p.	3.27	220	11 a.	148	0.03 a.	72
28	51.56	8 and 9 a.	48.86	1 and 2 p.	2.70	232	11 a.	161	11 and 12 m. n.	71
29	52.07	9.42 a.	47.39	1.18 p.	4.68	235	12 m. d.	160	3 a.	75
30	52.01	9 a.	47.76	0.36 p.	4.25	241	11 a.	165	12 m. n.	76
31	51.96	8 and 9 a.	47.55	1 p.	4.41	243	11 a.	165	5 a.	78
Mean	51.51		48.95		2.56	220		152		68

MAGNETIC OBSERVATIONS FOR MARCH, 1902.

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VERTICAL FORCE (0.1 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
1058	1069	1077	1076	1075	1077	1077	1076	1076	1076	1078	*1080	1072
1062	1066	1073	1076	1079	1081	1081	1081	*1082	1080	1080	1079	1075
1065	1073	1074	1078	1080	1078	1079	1079	1079	1079	1080	*1081	1076
1063	1068	1076	1077	1077	1077	1078	1078	1078	*1079	1078	*1079	1075
1031	1042	1045	1048	1048	1048	1049	1048	1048	1049	1051	1052	1058
1042	1051	1056	1058	1057	1055	1057	1059	1060	1061	1061	*1062	1054
1041	1052	1061	1064	*1065	1063	1062	1063	1063	1063	1064	1064	1056
1054	1063	1069	1071	1071	1067	1068	1069	1070	1071	*1072	*1072	1064
1066	*1078	1077	1076	1070	1070	1070	1071	1072	1071	1072	1074	1068
1058	1076	*1085	1084	1082	1076	1077	1077	1076	1075	1075	1076	1071
1062	1077	*1086	1082	1078	1074	1076	1077	1076	1077	1179	1078	1071
1073	1081	*1086	1084	1081	1079	1079	1079	1080	1079	1179	1080	1074
1059	1071	1083	*1086	1085	1078	1078	1077	1075	1076	1076	1077	1073
1053	1067	1073	1076	1079	1079	*1080	*1080	1079	1078	1079	1079	1072
1059	1070	1075	1077	*1081	*1081	*1081	*1081	*1081	*1081	*1081	1080	1075
1063	1067	1076	1080	1081	1081	*1083	1082	1082	1082	1082	1082	1075
1065	1069	1072	1079	1082	1084	1084	1084	1086	*1087	*1087	1085	1076
1076	1081	1091	*1094	1091	1089	1090	1090	1089	1089	1087	1084	1084
1062	1073	1086	*1088	1086	1085	1087	1087	*1088	1087	1087	1087	1079
1077	1088	*1093	*1093	1092	1087	1090	1090	1091	1091	1092	*1093	1085
1099	1109	1116	*1121	1119	1115	1116	1116	1115	1114	1114	1114	1100
1091	1102	1111	1112	1109	1108	1110	1109	1106	1104	1105	1104	1103
1085	1097	1107	1112	1114	1111	1112	1112	1112	1111	1111	1111	1101
1087	1095	1108	1107	*1113	*1113	1110	1111	1111	1110	*1113	1105	1101
1091	1099	1104	1104	1104	1107	*1108	*1108	1107	1107	*1108	1107	1099
1094	1105	1115	*1116	1115	1110	1109	1109	1109	1108	1105	1103	1102
1086	1095	1104	*1112	1111	1106	1108	1107	1108	1107	1107	1106	1098
1081	1092	1099	1107	*1108	1107	1107	1107	1107	1104	1101	1100	1098
1077	1089	1101	1107	*1108	1103	1103	1102	1102	1102	1102	1102	1094
1073	1080	1091	1099	*1100	1096	1096	1096	1096	1096	1096	1095	1089
1072	1089	1098	*1103	*1103	1098	1098	1099	1099	1099	1099	1098	1090
1069	1079	1086	*1089	*1089	1087	1087	1087	1087	1087	1087	1087	1081

EXTREME VALUES.

Vertical force.					Northerly dip.					
Maxima.	Hour.	Minima.	Hour.	Daily range.	Daily mean.	Maxima.	Hour.	Minima.	Hour.	Daily range.
0. 11080	12 m.n.	0. 11057	11 a. and 12 m.d.	0. 00023	16°. 10'. 60	16°. 11'. 60	12 m.n.	16°. 08. 42	11. 31 a.	3'. 18
1084	9. 12 p.	1059	11. 40 a.	25	11. 00	12. 06	9. 12 p.	8. 70	11. 40 a.	3. 36
1081	12 m.n.	1057	12 m.d.	24	11. 05	11. 74	5 a.	8. 61	12 m.d.	3. 13
1082	8. 14 a.	1058	12 m.d.	24	10. 88	11. 47	1 a.	8. 55	12 m.d.	2. 92
1080	1 a.	1027	12 m.d.	53	9. 34	11. 37	4 a.	6. 02	12 m.d.	5. 35
1064	11. 17 p.	1034	11. 13 a.	30	9. 03	9. 96	11. 17 p.	6. 63	11. 13 a.	3. 33
1065	5 p.	1029	11. 23 a.	36	9. 18	10. 18	12 m.n.	6. 09	11. 23 a.	4. 09
1074	5. 17 p.	1044	11. 09 a.	30	9. 89	11. 20	11 p.	7. 13	11 a.	4. 07
1079	1. 52 p.	1047	10. 14 a.	32	10. 37	11. 25	12 m.n.	7. 87	10. 14 a.	3. 38
1085	3 p.	1046	11. 11 a.	39	10. 49	11. 75	4 p.	7. 41	11. 11 a.	4. 34
1086	3 p.	1038	10. 33 a.	48	10. 33	11. 69	3 p.	6. 27	10. 24 a.	5. 42
1086	3 p.	1046	10 a.	40	10. 74	12. 29	3 p.	7. 41	10 a.	4. 88
1086	4 p.	1047	11 a.	39	10. 61	11. 73	5 p.	7. 35	11 a.	4. 38
1080	1. 54 a.	1042	11. 15 a.	38	10. 48	11. 59	1 a.	6. 93	11. 15 a.	4. 66
1081	5 to 11 p.	1052	12 m.d.	29	10. 63	11. 58	12 m.n.	7. 69	12 m.d.	3. 89
1083	7 p.	1058	10 and 11 a.	25	10. 68	11. 84	12 m.n.	8. 00	10. 39 a.	3. 84
1087	10 and 11 p.	1055	10 a.	32	10. 91	12. 23	10 p.	8. 30	10 a.	3. 93
1094	4 p.	1069	11. 47 a.	25	11. 41	12. 21	10 p.	9. 34	11. 47 a.	2. 87
1088	4 and 9 p.	1055	0. 11 p.	33	11. 02	12. 09	1 a.	8. 01	11 a.	4. 08
1094	2. 24 p.	1069	12 m.d.	25	11. 22	12. 52	12 m.n.	8. 75	11 a.	3. 77
1121	4 p.	1072	10 a.	49	12. 66	14. 52	11. 05 p.	9. 42	10 a.	5. 10
1114	1 a.	1082	11 a.	32	13. 06	14. 29	1 a.	10. 40	11 a.	3. 89
1114	5 p.	1079	10 and 11 a.	35	12. 74	13. 90	5 p.	10. 08	11 a.	3. 82
1115	4. 50 p.	1080	12 m.d.	35	12. 67	14. 76	10. 28 p.	9. 37	11 a. and 12 m.d.	5. 39
1108	7. 8, and 11 p.	1078	10. 57 a.	30	12. 82	13. 91	7 p.	10. 43	10. 41 a.	3. 48
1117	3. 34 p.	1073	10. 17 a.	44	12. 88	14. 32	5 p.	8. 95	10. 17 a.	5. 37
1112	4 p.	1079	10 and 11 a.	33	12. 59	13. 74	5 p.	9. 93	11 a.	3. 81
1108	5 p.	1074	12 m.d.	34	12. 31	13. 56	9 p.	9. 33	12 m.d.	4. 23
1108	5 p.	1068	12 m.d.	40	12. 09	13. 47	5 p.	8. 66	12 m.d.	4. 81
1100	5 p.	1059	11. 24 a.	41	11. 58	12. 71	5 p.	7. 81	11. 24 a.	4. 90
1103	4 and 5 p.	1061	11 a.	42	11. 66	12. 91	5 p.	7. 88	11 a.	5. 03
1092		1058		34	11. 20	12. 40		8. 25		4. 15

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

EASTERLY DECLINATION ($0^{\circ} 40'$ + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	10'.05	10'.05	10'.05	10'.05	10'.05	10'.48	11'.76	*12'.61	12'.32	10'.90	9'.91	8'.77
2-----	10.00	10.14	10.14	10.14	10.00	10.00	10.85	11.13	11.13	*11.27	10.85	9.43
3-----	9.94	9.94	9.94	9.94	9.80	9.66	11.08	11.93	*12.50	12.07	10.65	9.23
4-----	10.03	10.03	10.03	9.60	9.60	9.17	10.03	10.45	*10.74	*10.74	10.45	9.60
5-----	9.83	9.83	9.83	9.69	9.40	9.26	9.97	*10.82	10.25	9.97	8.41	*7.13
6-----	9.63	9.63	9.49	9.49	9.35	9.49	10.91	*11.33	11.05	9.63	8.35	*7.07
7-----	9.29	9.29	9.29	9.29	9.29	9.29	10.14	*10.43	10.14	9.57	8.30	*7.73
8-----	9.45	9.45	9.45	9.45	9.45	9.45	10.59	*10.73	*10.73	9.59	8.88	7.75
9-----	9.61	9.61	9.75	9.75	9.75	9.89	10.60	*10.89	*10.89	*10.89	9.75	8.62
10-----	9.61	9.75	9.75	9.61	9.61	9.61	9.75	*10.32	10.18	9.61	9.18	8.90
11-----	9.61	9.75	10.04	10.04	9.89	9.89	*11.17	10.60	9.47	8.76	8.62	7.34
12-----	9.04	9.04	9.47	9.47	9.47	9.47	9.61	9.75	9.75	9.61	9.61	9.18
13-----	9.47	9.61	9.61	9.61	9.61	9.47	10.32	*11.03	*11.03	10.18	8.90	8.47
14-----	9.33	9.47	9.47	9.47	9.47	9.61	10.46	*11.03	10.75	9.61	8.33	*7.20
15-----	9.47	9.47	9.47	9.47	9.33	9.61	10.46	*10.89	10.75	10.18	9.04	8.47
16-----	9.33	9.33	9.47	9.47	9.47	9.61	10.32	*10.89	10.21	9.47	8.73	8.16
17-----	9.04	9.18	9.18	9.33	9.33	9.61	*10.04	*10.04	9.33	8.47	8.19	*7.34
18-----	8.90	8.90	8.90	8.90	8.90	*8.47	9.04	9.61	9.18	9.47	9.89	9.89
19-----	10.04	10.18	10.18	10.18	10.04	10.40	11.03	*11.46	11.17	10.18	9.61	8.62
20-----	10.18	10.46	10.18	10.18	10.04	10.32	11.17	12.17	*12.31	11.03	9.47	8.19
21-----	10.60	10.89	10.75	10.75	10.04	10.04	11.03	*11.40	11.23	10.89	9.87	9.19
22-----	10.60	10.46	10.60	10.46	10.18	10.72	*11.06	10.89	10.72	9.87	9.19	9.19
23-----	10.33	10.33	10.33	10.33	10.33	10.33	10.38	10.38	10.04	9.19	*8.51	9.19
24-----	10.51	10.53	10.54	10.56	10.57	10.72	*11.06	10.89	*11.06	9.70	8.00	*7.66
25-----	10.45	10.47	10.62	10.64	10.52	11.10	11.97	*12.25	11.91	10.89	9.53	*9.36
26-----	10.10	10.21	10.18	10.14	10.10	10.21	10.21	10.55	*10.72	9.70	9.53	9.36
27-----	10.32	10.32	10.32	10.32	10.32	10.75	11.31	*11.46	11.17	10.28	9.75	9.04
28-----	9.89	10.04	10.04	10.04	10.04	9.89	*10.60	*10.60	10.46	9.61	9.33	9.33
29-----	10.04	10.04	10.04	9.89	9.89	10.46	*10.89	*10.89	10.75	9.89	8.90	*7.91
30-----	9.89	10.04	10.04	10.04	10.18	10.60	*10.75	10.32	9.33	8.19	*7.62	*7.62
Mean	9'.82	9'.88	9'.91	9'.88	9'.80	9'.92	10'.62	*10'.92	10'.71	9'.98	9'.15	8'.50

HORIZONTAL FORCE (0.38... + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	175	172	174	169	174	175	178	195	219	238	251	*253
2-----	172	172	*171	179	174	175	173	176	195	210	*220	215
3-----	170	171	167	163	165	167	176	184	207	218	*221	216
4-----	166	167	171	170	168	166	167	179	200	215	*224	218
5-----	166	165	163	166	165	163	164	175	195	208	*220	213
6-----	163	165	162	164	*161	164	170	181	196	216	*220	214
7-----	168	168	167	165	167	167	169	179	197	215	*225	216
8-----	163	164	*162	165	165	164	172	184	201	215	*220	*220
9-----	166	172	167	166	165	168	165	182	200	218	*222	215
10-----	164	161	164	163	158	*157	164	173	190	210	*223	219
11-----	172	168	171	175	165	163	185	185	185	*186	*186	171
12-----	*124	126	128	128	128	128	134	144	156	165	*174	166
13-----	146	143	144	142	143	*141	143	152	170	184	*190	188
14-----	146	*145	154	154	154	155	158	169	182	196	*198	193
15-----	157	157	157	155	154	152	*149	153	169	181	196	*197
16-----	161	161	*158	160	164	165	170	171	185	203	*212	207
17-----	169	168	169	*166	169	177	179	186	200	211	*220	213
18-----	172	173	178	171	166	170	169	173	189	*205	200	198
19-----	158	159	156	157	154	162	164	171	186	203	*207	205
20-----	151	152	156	159	158	158	166	170	190	216	*225	223
21-----	*132	143	141	145	144	146	149	156	167	189	*196	192
22-----	150	157	154	151	154	156	158	160	171	191	196	*198
23-----	160	159	158	159	160	162	165	177	191	201	205	*206
24-----	*156	158	157	158	159	161	161	167	179	195	*205	201
25-----	167	166	166	166	165	*161	162	169	177	188	194	*197
26-----	166	164	161	*157	161	159	163	173	184	196	202	*207
27-----	156	156	157	159	159	159	162	159	181	192	*201	197
28-----	164	165	163	*161	163	162	166	174	187	202	*201	209
29-----	166	166	159	159	158	*156	163	175	188	205	*212	208
30-----	160	159	*158	159	161	166	170	176	193	199	*206	202
Mean	160	161	160	160	160	161	164	172	188	202	*209	206

MAGNETIC OBSERVATIONS FOR APRIL, 1902.

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EASTERLY DECLINATION ($0^{\circ} 40'$ + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
*7.64	7.78	8.77	9.91	10.90	10.34	9.91	9.91	9.91	10.05	10.05	10.19	10.10
*8.43	8.72	9.57	10.42	10.99	10.28	9.85	9.85	9.71	9.85	10.00	10.14	10.12
8.24	*7.95	9.09	9.94	10.22	9.80	9.66	9.80	9.80	9.66	9.94	10.08	10.04
*7.90	*7.90	9.03	9.74	10.17	10.03	10.03	10.03	10.03	10.03	10.03	10.03	9.81
7.27	7.70	8.55	9.83	9.97	9.83	9.83	9.69	9.69	9.69	9.69	9.69	9.41
*7.07	7.78	8.78	9.63	9.63	9.63	9.49	9.49	9.49	9.35	9.35	9.35	9.35
*7.73	7.87	8.44	9.57	9.72	9.29	9.15	9.15	9.15	9.15	9.15	9.15	9.11
*7.04	7.32	8.46	9.31	9.88	9.59	9.45	9.45	9.45	9.45	9.45	9.45	9.30
*8.47	9.18	9.75	10.75	*10.89	10.18	9.75	9.61	9.61	9.61	9.61	9.61	9.88
8.33	*8.19	9.04	9.75	10.04	9.75	9.47	9.47	9.47	9.47	9.33	9.75	9.50
*6.91	7.34	8.19	9.61	10.46	10.32	10.04	9.75	10.04	9.18	9.18	8.90	9.38
8.47	*8.33	9.33	9.75	*9.89	9.61	9.61	9.47	9.47	9.33	9.33	9.47	9.40
8.19	*8.05	8.33	9.47	9.75	9.61	9.61	9.61	9.47	9.33	9.33	9.33	9.47
*7.20	8.05	8.90	9.61	9.89	9.75	9.61	9.61	9.61	9.47	9.47	9.47	9.37
*8.19	*8.19	8.76	9.47	9.75	9.61	9.61	9.61	9.47	9.47	9.47	9.61	9.49
7.92	*7.85	7.96	9.08	9.47	9.33	9.33	9.18	9.04	9.04	9.18	9.33	9.22
*7.34	7.62	8.05	8.76	9.33	8.90	8.90	8.90	8.76	8.76	8.90	9.18	8.85
9.75	9.61	9.61	10.60	*10.89	10.18	10.32	10.18	10.04	9.89	9.89	9.89	9.62
*8.19	8.33	8.76	9.61	10.75	10.32	10.32	10.18	10.04	9.89	9.89	10.04	9.97
*7.34	7.62	8.62	9.61	10.89	10.89	10.75	10.32	10.46	10.04	10.18	10.04	10.10
*9.02	9.36	9.87	10.21	10.72	10.21	10.04	9.89	9.89	9.89	10.04	10.18	10.25
8.85	*8.68	9.36	10.38	10.55	10.33	10.19	10.19	10.05	10.05	10.05	10.19	10.12
9.02	9.02	9.36	10.04	*10.89	10.55	10.42	10.30	10.31	10.19	10.20	10.38	10.01
8.00	8.68	9.70	10.04	10.55	10.21	10.22	10.24	10.25	10.27	10.28	10.30	10.02
9.53	9.70	9.87	10.76	10.89	10.21	10.47	10.14	10.10	10.07	10.03	9.99	10.48
9.02	*8.85	9.02	10.04	10.55	*10.72	10.47	10.10	10.00	9.90	9.94	10.14	9.99
8.90	*8.62	9.75	10.28	10.32	10.32	10.28	10.28	10.04	10.04	10.04	10.28	10.19
*9.18	*9.18	9.33	10.18	10.60	10.04	10.04	9.89	9.89	9.89	10.04	10.04	9.92
8.05	8.90	9.75	10.32	10.32	9.89	9.89	9.89	9.75	9.75	9.75	9.89	9.86
7.91	8.94	9.33	10.18	10.04	9.89	10.32	10.18	10.04	10.18	10.18	10.32	9.68
*8.17	8.38	9.04	9.90	10.30	9.99	9.90	9.81	9.77	9.70	9.73	9.81	9.73

HORIZONTAL FORCE (0.38 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
237	214	194	182	170	161	*160	*160	163	169	171	170	189
204	197	189	182	177	177	181	179	176	174	175	172	184
199	186	179	173	172	172	167	162	*161	166	162	167	179
212	205	190	181	177	171	172	171	171	169	165	*161	181
200	191	181	173	171	166	166	166	166	164	*162	164	176
202	193	183	174	173	172	170	170	169	168	169	171	179
203	192	182	175	174	171	168	168	166	163	*162	*162	179
215	209	202	192	181	175	175	177	171	172	175	169	184
208	198	193	175	*157	162	161	159	159	161	166	159	178
215	203	188	175	169	182	181	180	171	169	163	168	180
152	129	101	073	064	047	*026	043	106	111	115	122	133
168	157	152	148	144	148	149	147	145	144	144	147	146
181	170	163	156	149	143	144	151	152	156	148	153	156
187	181	174	165	159	158	156	158	157	154	154	155	165
189	186	176	169	163	159	160	160	159	159	159	159	166
200	195	190	183	176	174	175	172	170	170	171	171	178
210	197	190	182	179	172	168	169	171	169	170	172	182
191	184	172	164	163	160	160	157	*156	159	158	157	173
193	186	175	164	158	150	143	*141	142	145	146	147	166
211	201	218	181	167	159	147	127	*104	133	126	131	168
191	181	173	174	165	159	152	150	148	146	141	147	159
192	186	182	173	162	155	152	*149	151	154	155	155	165
201	193	183	176	169	160	155	*152	153	153	158	156	167
198	192	184	180	174	172	176	176	176	171	165	167	175
182	186	181	174	177	174	171	170	169	166	166	165	173
205	200	189	186	174	168	167	170	170	172	174	178	177
199	192	192	176	173	169	169	168	168	168	168	167	173
200	190	187	178	170	163	162	*161	164	165	164	164	175
201	193	181	172	166	162	161	161	161	161	161	160	173
199	196	185	183	171	169	171	165	170	162	161	167	175
198	189	181	171	165	161	159	*158	159	160	159	160	172

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

VERTICAL FORCE (0.1 . . . + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	1095	1092	1091	1090	1089	1089	1092	1087	1078	1066	*1062	1065
2-----	1104	1104	1103	1102	1101	1099	1098	1095	1091	1086	1080	*1078
3-----	1107	1105	1102	1101	1099	1098	1103	1098	1091	1080	*1071	1075
4-----	1100	1100	1098	1095	1094	1093	1098	1096	1089	1084	1081	*1079
5-----	1104	1103	1102	1101	1098	1098	1103	1098	1088	1086	*1084	1094
6-----	1109	1106	1104	1101	1100	1101	1102	1095	1085	*1077	*1077	1081
7-----	1106	1105	1104	1102	1099	1098	1095	1090	1082	1079	*1076	1081
8-----	1103	1101	1100	1098	1096	1095	1095	1092	1080	1076	*1074	1076
9-----	1103	1102	1099	1097	1095	1092	1089	1087	1081	1079	*1075	1076
10-----	1103	1102	1100	1098	1096	1094	1094	1094	1088	1087	*1086	1088
11-----	1111	1112	1109	1107	1105	1104	1104	1095	1090	1093	1095	*1089
12-----	*1113	1110	1107	1106	1105	1104	1103	1101	1094	1094	1093	*1090
13-----	1104	1103	1102	1101	1098	1097	1099	1097	1086	1074	*1071	1074
14-----	1098	1098	1097	1095	1094	1095	1096	1090	1080	1074	*1072	1077
15-----	*1108	1107	1106	1104	1101	1100	1099	1094	1084	1077	*1075	*1075
16-----	1087	1087	1085	1086	1086	1086	1085	1083	1080	*1078	1080	1083
17-----	1093	1091	1089	1088	1086	1084	1081	1076	1069	*1064	1066	1071
18-----	1093	1092	1089	1086	1083	1082	1079	1080	1079	1079	*1072	*1072
19-----	1094	1091	1088	1085	1082	1080	1079	1076	1074	*1068	1069	1073
20-----	1098	1097	1096	1095	1092	1092	1091	1085	1080	*1071	*1071	1076
21-----	*1103	1102	1101	1099	1097	1095	1094	1088	1087	*1080	1081	1082
22-----	1093	1090	1090	1089	1087	1084	1081	1076	1074	*1071	1074	1080
23-----	1098	1098	1098	1098	1097	1097	1097	1096	1095	*1093	1094	1096
24-----	1103	1102	1099	1096	1094	1093	1090	1086	1083	1079	*1078	1082
25-----	1104	1104	1103	1101	1099	1097	1095	1089	1084	*1083	*1083	1086
26-----	1101	1099	1095	1093	1092	1088	1085	1081	1081	*1080	1081	1083
27-----	1109	1108	1106	1105	1105	1104	1104	1095	1089	1084	1081	*1078
28-----	1112	1111	1109	1106	1105	1103	1103	1097	1088	*1081	1083	1085
29-----	1106	1105	1103	1102	1101	1100	1097	1088	1066	*1065	*1065	1070
30-----	1100	1098	1093	1092	1091	1089	1082	1074	1072	*1071	1073	1077
Mean	1102	1101	1099	1097	1096	1094	1094	1089	1083	1079	*1077	1080

EXTREME VALUES.

Easterly declination.						Horizontal force.				
Day.	Maxima.	Hour.	Minima.	Hour.	Daily range.	Maxima.	Hour.	Minima.	Hour.	Daily range.
1	0 52.61	8 a.	0 47.50	1.10 p.	5.11	0.38253	12 m. d.	0.38158	7.50 p.	0.00095
2	51.41	9.37 a.	48.29	1.24 p.	3.12	220	11 a.	171	3 a.	49
3	52.50	9 a.	47.95	2 p.	4.55	221	11 a.	161	9 p.	60
4	50.74	9 and 10 a.	47.76	1.45 p.	2.98	224	11 a.	161	12 m. n.	63
5	50.82	8 a.	47.13	12 m. d.	3.69	220	11 a.	162	11 p.	58
6	51.33	8 a.	46.93	1.10 p.	4.40	220	11 a.	161	5 a.	59
7	50.43	8 a.	47.59	0.33 p.	2.84	225	11 a.	162	11 and 12 m. d.	63
8	50.73	8 and 9 a.	47.04	1 p.	3.69	220	11 a, 12 m. d.	162	3 a.	58
9	51.03	10.10 a.	48.47	1 p.	2.56	222	11 a.	157	5 p.	65
10	50.32	8 a.	48.19	2 p.	2.13	223	11 a.	157	6 a.	66
11	51.31	7.04 a.	46.91	1 p.	4.40	187	11.15 a.	020	7.06 p.	167
12	49.89	5 p.	48.19	1.33 p.	1.70	174	11 a.	124	1 a.	50
13	51.03	8 and 9 a.	48.05	2 p.	2.98	190	11 a.	141	6 a.	49
14	51.03	8 a.	47.06	0.25 p.	3.97	198	11 a.	145	2 a.	53
15	50.89	8 a.	48.05	1.30 p.	2.84	197	12 m. d.	149	7 a.	48
16	50.89	8 a.	47.85	2 p.	3.04	212	11 a.	158	3 a.	54
17	50.18	7.18 a.	47.20	0.16 p.	2.98	220	11 a.	166	4 a.	54
18	50.89	5 p.	48.47	6 a.	2.42	205	10 a.	156	9 p.	49
19	51.46	8 a.	48.19	1 p.	3.27	207	11 a.	141	8 p.	66
20	52.31	9 a.	47.34	1 p.	4.97	225	11 a.	104	9 p.	121
21	51.40	8 a.	49.02	1 p.	2.38	196	11 a.	132	1 a.	64
22	51.06	7 a.	48.68	2 p.	2.38	198	12 m. d.	149	8 p.	49
23	50.89	5 p.	48.51	11 a.	2.38	206	12 m. d.	152	8 p.	54
24	51.06	7 and 9 a.	47.66	12 m. d.	3.40	205	11 a.	156	1 a.	49
25	52.25	8 a.	49.36	12 m. d.	2.89	197	12 m. d.	161	6 a.	36
26	50.72	6 p.	48.85	2 p.	1.87	207	12 m. d.	157	4 a.	50
27	51.46	8 a.	48.62	2 p.	2.84	201	11 a.	156	1 and 2 a.	45
28	50.60	7, 8 a. and 5 p.	49.04	1.30 p.	1.56	212	11 a.	161	4 a. and 8 p.	51
29	50.89	7 and 8 a.	47.91	12 m. d.	2.98	212	11 a.	156	6 a.	56
30	50.75	7 a.	47.62	11 a, 12 m. d.	3.13	206	11 a.	158	3 a.	48
Mean	51.10		47.98		3.12	210		148		62

MAGNETIC OBSERVATIONS FOR APRIL, 1902.

19

VERTICAL FORCE (0.1 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
1074	1088	1100	*1108	*1108	1105	1107	1107	1107	1107	1106	1104	1092
1086	1099	1111	*1116	*1116	1115	*1116	1115	1115	1114	1113	1111	1103
1086	1099	1109	*1111	1109	1108	1108	1108	1108	1107	1106	1105	1100
1083	1091	1100	1106	1106	1105	1106	1106	*1107	*1107	1106	1106	1097
1107	1112	1116	*1120	1117	1115	1115	1115	1114	1113	1113	1112	1105
1093	1104	1114	*1116	*1116	1112	1112	1112	1112	1111	1110	1108	1102
1088	1100	1108	*1115	1113	1109	1110	1110	1109	1108	1106	1105	1100
1081	1094	1105	1108	*1110	1104	1105	1105	1106	1106	1106	1006	1097
1087	1093	1102	1105	1105	1103	1107	1107	*1108	1106	1107	1104	1096
1091	1097	1103	1113	*1114	1112	1109	1110	1109	1110	1110	1113	1101
1096	1101	1112	1114	1121	1117	1118	1122	*1124	1110	1113	1113	1107
1092	1101	1108	*1113	*1113	1108	1109	1108	1107	1107	1106	1105	1104
1082	1088	1099	1105	*1106	1103	1103	1102	1102	1101	1100	1100	1096
1088	1101	1106	1110	1109	*1116	1115	1114	1112	1111	1110	1109	1099
1077	1082	1085	1090	1090	1085	1085	1085	1085	1086	1086	1086	1090
1086	1089	1090	1092	1092	1092	1096	1095	1095	*1097	*1097	1095	1088
1076	1086	1095	1098	*1099	1097	1098	1098	*1099	1098	1097	1097	1087
1077	1085	1092	1095	1096	1095	*1097	*1097	*1097	*1097	1096	1095	1088
1077	1083	1087	1092	1097	1098	1098	1099	1099	1099	1099	*1100	1087
1080	1089	1096	1099	1104	1105	1103	1104	*1106	1105	1105	1104	1094
1087	1091	1096	1099	1099	1099	1098	1098	1098	1097	1096	1094	1094
1085	1090	1096	1100	*1102	1099	1098	1097	1096	1096	1097	1097	1089
1098	1104	1110	1115	*1116	*1116	1111	1108	1107	1108	1106	1104	1102
1088	1095	1099	1108	1112	*1113	1111	1109	1108	1107	1106	1104	1098
1092	1097	1101	1105	1108	1109	1108	1106	1105	1104	1102	1102	1099
1088	1095	1104	1113	*1117	1116	1108	1107	1105	1106	1107	1108	1097
1083	1093	1102	1111	1115	1115	*1116	1115	1113	1112	1112	1111	1103
1090	1097	1109	1113	*1114	1112	1111	1110	1110	1110	1109	1108	1103
1084	1096	1103	1105	1102	1099	1102	1102	1101	1101	1101	1100	1094
1085	1093	1101	*1108	1104	1102	1101	1101	1101	1100	1100	1100	1092
1086	1094	1102	1107	*1108	1106	1106	1106	1106	1105	1104	1104	1097

EXTREME VALUES.

Vertical force.					Northerly dip.					
Maxima.	Hour.	Minima.	Hour.	Daily range.	Daily mean.	Maxima.	Hour.	Minima.	Hour.	Daily range.
0.11108	4 and 5 p.	0.11062	11 a.	0.00046	16°. 11'. 76	16°. 13'. 75	7.50 p.	16°. 07. 78	11 a.	5'. 97
1116	4, 5 and 7 p.	1078	12 m.d.	38	12. 79	14. 04	5 p.	9. 97	12 m. d.	4. 07
1111	4 p.	1071	11 a.	40	12. 66	13. 76	9 p.	9. 24	11 a.	4. 52
1107	9 and 10 p.	1079	12 m.d.	28	12. 37	13. 60	12 m. n.	9. 98	12 m. d.	3. 62
1120	4 p.	1084	11 a.	36	13. 15	14. 47	4 p.	10. 35	11 a.	4. 12
1116	4 and 5 p.	1077	10 and 11 a.	39	12. 83	14. 14	5 p.	9. 77	11 a.	4. 37
1115	4 p.	1076	11 a.	39	12. 66	14. 00	4 p.	9. 56	11 a.	4. 44
1110	5 p.	1074	11 a.	36	12. 29	13. 44	5 p.	9. 52	11 a.	3. 92
1108	9 p.	1075	11 a.	33	12. 35	13. 81	9 p.	9. 55	11 a.	4. 26
1116	5.39 p.	1086	11 a.	30	12. 72	14. 07	5 p.	10. 44	11 a.	3. 63
1124	9 p.	1087	11.20 a.	37	14. 36	18. 10	7.06 p.	11. 42	11.20 a.	6. 68
1113	1 a., 4 and 5 p.	1090	12 m. d.	23	13. 79	15. 07	1 a.	12. 15	12 m. d.	2. 92
1106	5 p.	1071	11 a.	35	12. 88	13. 88	5 p.	9. 99	11 a.	3. 89
1116	6 p.	1072	11 a.	44	12. 92	14. 50	6 p.	9. 88	11 a.	4. 62
1108	1 a.	1075	11 and 12 m.d.	33	12. 15	13. 86	1 a.	10. 15	12 m. d.	3. 71
1097	10 and 11 p.	1078	10 a.	19	11. 69	12. 63	10 p.	10. 21	11 a.	2. 42
1099	5 and 9 p.	1064	10 a.	35	11. 51	12. 77	9 p.	8. 85	11 a.	3. 92
1097	7 to 10 p.	1072	11 and 12 m.d.	25	11. 81	12. 97	9 p.	9. 83	11 a.	3. 14
1100	12 m.n.	1068	10 a.	32	11. 90	13. 50	8 p.	9. 41	11 a.	4. 09
1108	9.40 p.	1071	10 and 11 a.	37	12. 43	14. 98	9 p.	9. 15	11 a.	5. 83
1103	1 a.	1080	10 a.	23	12. 65	14. 00	1 a.	10. 67	11 a.	3. 33
1102	5 p.	1071	10 a.	31	12. 09	13. 24	5 p.	9. 97	10 a.	3. 27
1116	5 and 6 p.	1093	10 a.	23	13. 12	14. 45	6 p.	11. 45	11 a.	3. 00
1113	6 p.	1078	11 a.	35	12. 59	13. 91	6 p.	10. 21	11 a.	3. 70
1109	6 p.	1083	10 and 11 a.	26	12. 73	13. 53	6 p.	10. 88	11 a.	2. 65
1117	5 p.	1080	10 p.	37	12. 47	14. 28	6 p.	10. 53	11 a.	3. 75
1116	7 p.	1078	12 m.d.	38	13. 05	14. 23	7 p.	10. 43	12 m. d.	3. 80
1114	5 p.	1081	10 a.	33	13. 00	14. 05	5 and 6 p.	10. 45	11 a.	3. 60
1106	1 a.	1065	10 and 11 a.	41	12. 31	13. 48	1 a.	8. 96	11 a.	4. 52
1108	4 p.	1071	10 a.	37	12. 10	13. 23	4 p.	9. 77	10 and 11 a.	3. 46
1110		1076		34	12. 58	13. 99		10. 02		3. 97

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

EASTERLY DECLINATION ($0^{\circ} 40'$ + the numbers in the table).

Day.	1a.	2a.	3a.	4a.	5a.	6a.	7a.	8a.	9a.	10a.	11a.	Noon.
1	10'.46	10'.60	10'.46	10'.46	10'.60	10'.75	*11'.03	10'.75	10'.60	9'.75	8'.76	*8'.33
2	10.46	10.60	10.60	10.32	10.46	11.31	*12.02	11.17	10.60	9.33	8.05	*7.91
3	10.46	10.46	10.18	10.18	10.60	10.89	12.02	*12.17	11.17	10.32	*8.90	*8.90
4	10.46	10.46	10.60	10.60	10.60	10.89	11.60	*11.88	11.17	9.89	9.33	9.33
5	10.60	10.75	10.89	10.89	10.75	11.17	11.88	12.17	11.74	10.89	9.75	9.47
6	10.60	10.75	10.60	10.46	10.18	10.89	11.17	*11.31	11.03	10.32	9.75	9.33
7	10.32	10.46	10.32	10.32	10.18	10.89	*11.03	10.60	9.89	9.18	8.62	8.19
8	10.32	10.60	10.75	10.75	10.75	11.17	12.02	*12.45	11.74	11.17	10.04	9.04
9	11.31	11.46	11.60	11.31	11.31	11.88	13.16	*13.30	12.31	11.46	10.18	9.47
10	11.88	12.02	12.02	12.02	12.02	12.02	*13.02	12.02	11.03	10.46	9.89	*9.75
11	10.75	11.03	11.03	11.17	11.03	11.60	*12.59	*12.59	11.60	10.18	*9.18	9.61
12	10.46	10.18	10.18	10.32	10.32	11.17	*11.31	11.17	10.46	9.61	8.47	*8.33
13	10.18	10.18	10.18	10.18	10.46	11.17	*11.60	11.31	10.32	9.61	9.04	*8.90
14	9.95	10.02	10.08	10.28	10.34	10.55	11.46	*11.52	10.50	9.31	*8.97	9.31
15	9.93	*10.21	*10.21	*10.21	10.07	10.07	10.07	9.79	9.50	8.37	*7.37	*7.37
16	9.97	10.11	10.11	10.11	10.11	10.39	9.97	9.40	8.97	7.98	*7.84	8.41
17	9.87	9.87	9.87	9.87	10.01	10.72	*11.00	10.86	9.58	8.87	*8.02	*8.02
18	9.76	9.76	9.91	9.76	9.91	10.76	*10.90	*10.90	10.19	9.18	*8.20	*8.20
19	9.80	9.95	9.95	9.95	10.09	11.08	*12.36	*12.36	*10.94	9.66	9.09	*8.81
20	9.70	9.70	9.70	9.70	9.70	9.84	*10.98	*10.98	10.41	9.56	*8.85	8.99
21	9.73	9.73	9.73	9.73	9.73	10.58	*10.87	*10.87	10.02	*9.73	9.59	*9.59
22	9.91	10.06	10.20	10.20	10.34	11.05	*11.48	*11.48	11.33	10.62	9.63	*9.49
23	10.10	10.24	10.24	10.38	10.81	11.66	*12.37	11.94	10.66	10.38	*9.10	9.24
24	10.28	10.42	10.42	10.42	10.85	12.41	13.12	*13.26	11.70	10.28	9.57	*8.57
25	10.18	10.32	10.46	10.60	11.03	12.02	*12.31	12.16	10.89	9.18	8.19	*7.05
26	10.07	10.22	10.50	10.50	11.07	12.35	*12.77	12.49	10.78	9.36	8.51	*8.37
27	10.11	10.26	10.26	10.40	10.68	11.53	*12.10	11.39	10.11	8.39	7.39	*6.82
28	9.81	9.95	9.95	10.09	10.09	10.66	*11.37	*11.37	10.09	8.67	7.25	*6.11
29	9.81	9.95	9.95	9.95	10.09	11.37	*11.79	11.23	9.95	8.67	*7.96	8.09
30	9.81	10.09	10.09	10.09	10.23	10.66	*11.37	9.10	8.24	6.97	*5.83	6.27
31	9.66	9.66	9.52	9.52	9.81	10.80	*11.08	9.38	8.67	7.82	*7.11	7.25
Mean	10'.22	10'.32	10'.34	10'.35	10'.46	11'.11	*11'.67	11'.40	10'.52	9'.52	8'.66	*8'.47

HORIZONTAL FORCE ($0.38 \dots$ + the numbers in the table).

Day.	1a.	2a.	3a.	4a.	5a.	6a.	7a.	8a.	9a.	10a.	11a.	Noon.
1	163	164	161	*158	*158	160	161	170	183	196	210	*213
2	163	171	169	165	167	164	170	180	197	210	*211	202
3	158	163	161	158	*154	159	168	183	199	213	*217	214
4	161	163	164	163	164	166	169	176	188	200	*202	200
5	150	150	*149	155	157	155	158	162	173	185	*195	*195
6	163	164	164	162	163	161	*157	160	173	186	198	*200
7	163	165	162	160	163	168	175	187	200	207	*215	196
8	168	170	170	168	164	166	164	168	174	183	*184	180
9	179	172	165	160	160	165	167	173	187	197	207	198
10	146	142	152	151	*171	163	169	157	157	161	165	162
11	*145	147	149	151	151	152	152	159	173	181	*183	180
12	151	150	*149	152	151	152	158	168	176	189	194	*195
13	163	163	161	160	161	*159	166	176	186	196	196	198
14	174	178	175	179	179	181	178	191	198	202	218	*220
15	*167	170	173	173	174	172	176	186	196	207	*213	210
16	175	176	177	177	176	175	181	182	191	202	213	214
17	176	179	181	183	183	181	184	190	200	214	215	*217
18	174	179	178	180	180	184	184	189	195	202	202	205
19	*171	172	174	176	177	179	181	187	195	200	215	*218
20	190	190	190	188	185	182	181	182	186	193	202	*210
21	181	181	181	178	176	184	185	188	192	195	206	*211
22	187	186	187	187	186	186	186	194	203	207	214	*219
23	189	188	187	186	*185	189	191	198	207	*216	*216	215
24	194	193	195	196	193	198	206	216	227	232	*237	234
25	195	197	195	195	196	194	195	205	216	229	*233	232
26	*185	186	186	188	189	192	195	196	205	209	210	*215
27	189	188	184	182	*180	185	195	206	218	227	*231	226
28	198	199	196	199	196	197	201	209	216	222	228	*230
29	202	201	197	198	196	206	220	225	231	240	242	*243
30	194	195	199	199	204	203	202	214	221	*232	231	229
31	191	194	192	190	191	193	205	217	229	*231	*231	227
Mean	174	175	175	175	175	176	180	187	197	205	*211	210

MAGNETIC OBSERVATIONS FOR MAY, 1902.

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EASTERLY DECLINATION ($0^{\circ} 40'$ + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
8'.47	9'.18	9'.33	10'.04	10'.60	10'.46	10'.32	10'.32	10'.18	10'.18	10'.18	10'.32	10'.09
*7.91	9.04	9.47	10.46	10.46	10.60	10.75	10.32	10.18	10.18	10.32	10.32	10.12
9.33	9.33	9.75	10.32	10.75	10.75	10.46	10.18	10.18	10.18	10.32	10.32	10.34
9.04	*8.76	9.18	9.75	10.18	9.89	10.04	9.89	9.89	10.04	10.04	10.32	10.16
9.47	9.33	9.18	9.47	10.04	10.04	10.04	9.75	9.75	9.89	10.04	10.18	10.34
*8.19	8.33	9.04	9.75	10.75	10.18	10.32	10.18	10.18	10.18	10.18	10.32	10.17
*7.91	8.19	8.76	9.75	10.46	10.46	10.60	10.32	10.18	10.04	9.89	9.89	9.85
*8.62	9.18	9.75	10.32	11.31	10.60	10.89	10.75	10.18	10.18	10.18	10.60	10.56
*9.18	10.32	11.17	11.74	11.31	11.17	11.03	10.60	10.60	10.60	11.03	11.03	11.23
10.04	10.18	10.60	11.31	11.74	11.74	11.60	11.31	11.03	11.03	11.17	11.17	11.29
10.18	10.18	10.18	10.32	10.46	10.89	10.89	10.60	10.46	10.46	10.46	10.75	10.76
*8.33	9.33	10.04	11.03	11.17	11.03	10.46	10.18	10.18	10.18	10.32	10.18	10.19
*8.90	9.33	9.89	10.46	10.75	10.60	10.32	10.32	10.18	10.04	9.89	9.89	10.15
9.83	9.93	10.16	10.33	10.50	10.60	9.89	9.75	9.75	9.75	9.75	9.75	10.10
7.94	8.79	9.36	9.50	9.50	9.93	9.79	9.79	9.64	9.64	9.64	9.79	9.44
9.40	9.97	10.54	*10.82	10.68	10.11	10.11	9.83	9.68	9.68	9.68	9.68	9.73
8.73	9.44	10.15	10.72	10.72	10.15	9.72	9.58	9.58	9.58	9.58	9.58	9.75
*8.20	*8.20	9.48	9.62	9.76	9.76	9.76	9.62	9.62	9.62	9.62	9.76	9.61
9.52	9.52	9.52	9.52	9.66	9.66	9.52	9.52	9.52	9.52	9.38	9.52	9.93
8.99	9.42	9.56	9.84	9.84	9.70	9.70	9.70	9.70	9.70	9.70	9.70	9.74
9.73	9.73	9.73	9.73	10.02	10.02	9.88	9.88	9.88	9.88	9.73	9.73	9.91
9.63	10.20	10.77	11.19	11.19	10.48	10.20	9.91	9.77	9.77	9.91	9.91	10.36
9.24	9.39	9.53	9.67	9.95	10.24	10.10	9.95	9.81	9.81	9.95	10.10	10.24
*8.57	9.00	9.71	10.42	10.70	10.14	9.85	9.85	9.85	9.85	9.85	9.99	10.38
7.34	8.19	9.18	9.75	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.92
*8.37	8.80	9.65	10.22	10.93	10.22	10.22	10.07	10.07	9.93	9.93	10.07	10.23
7.25	7.25	8.10	9.10	9.95	9.52	9.38	9.24	9.24	9.24	9.52	9.81	9.46
6.26	6.54	7.39	8.67	9.52	9.66	9.95	9.81	9.66	9.66	9.66	9.66	9.24
8.39	8.24	8.53	8.81	9.10	9.10	9.24	9.24	9.10	9.10	9.24	9.52	9.44
6.82	7.39	8.67	9.81	9.95	9.95	9.66	9.52	9.81	9.66	9.66	9.66	9.14
7.39	7.68	8.39	8.95	9.10	9.24	9.24	8.95	8.81	8.95	9.10	9.24	8.97
8'.62	8'.98	9'.51	10'.04	10'.35	10'.22	10'.12	9'.96	9'.89	9'.88	9'.93	10'.02	10'.03

HORIZONTAL FORCE (0.33 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
212	209	193	186	174	170	169	166	166	169	167	166	177
197	183	174	165	160	159	*157	158	158	159	159	159	173
205	196	184	173	169	162	161	161	160	158	158	161	175
192	177	168	160	151	154	152	150	*149	151	152	*149	168
194	188	184	182	177	172	174	171	166	162	160	161	170
195	190	183	174	166	166	162	163	163	161	163	163	171
191	190	184	175	166	168	167	*159	160	160	160	163	175
172	171	164	*158	*158	159	161	165	183	183	171	159	169
*209	184	157	139	*119	136	137	138	139	132	130	133	162
158	159	158	152	145	*141	142	142	142	147	145	145	153
177	171	164	157	151	149	148	148	148	146	146	148	157
188	179	173	168	161	157	155	155	156	157	160	159	165
190	180	175	175	172	175	176	170	170	173	173	173	174
215	212	201	192	182	175	174	172	168	*166	171	170	186
210	202	191	184	179	175	172	170	171	171	171	173	183
*215	208	200	195	188	180	176	175	175	175	*172	173	186
215	210	203	193	183	182	180	178	178	178	176	*173	190
*207	201	202	187	182	174	170	160	*159	163	169	169	183
214	208	195	190	181	179	180	178	180	182	183	183	187
*210	205	197	191	185	*177	179	181	182	181	184	183	189
210	203	195	188	181	176	*175	179	184	183	183	186	188
216	208	200	190	184	*183	*183	*183	*183	184	185	187	193
211	206	204	201	199	194	196	197	197	197	195	195	198
226	215	204	200	196	196	196	197	195	197	196	*192	205
224	208	193	183	179	180	180	180	180	180	*178	181	197
*215	212	205	199	191	188	189	191	192	188	189	186	196
216	209	205	202	194	191	188	189	190	190	194	191	199
227	219	207	197	*186	*186	192	194	195	202	200	196	208
236	227	215	204	200	198	199	196	193	182	*180	189	209
216	204	202	195	190	*184	188	191	191	188	187	189	202
221	215	206	203	199	194	194	193	192	190	189	*186	203
206	198	190	183	176	174	173	173	173	173	*172	*172	184

VERTICAL FORCE (0.1 . . . + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	1098	1097	1094	1092	1091	1093	1091	1082	1073	1065	*1063	1065
2	1098	1096	1094	1091	1089	1089	1084	1073	1070	1066	*1060	1067
3	*1099	1097	1094	1092	1091	1091	1089	1087	1075	1069	1065	*1064
4	1086	1085	1084	1085	1084	1083	1082	1077	1070	1061	*1058	1062
5	1086	1087	1086	1085	1084	1086	1086	1083	1076	1071	*1070	1072
6	1091	1087	1085	1083	1082	1083	1079	1075	1069	1064	1064	*1063
7	1095	1093	1090	1089	1088	1086	1081	1073	1071	1071	*1070	1074
8	1096	1097	*1098	1095	1093	1092	1088	1083	1070	1069	*1067	1069
9	1103	1097	1094	1097	1093	1095	1093	1082	1069	1064	*1063	1070
10	1105	1101	1101	1096	1095	1090	1095	1085	1079	*1075	1082	1092
11	*1105	1103	1102	1101	1101	1102	1100	1092	1080	1075	*1071	1079
12	1095	1095	1094	1094	1090	1094	1085	1079	1072	*1070	1071	1078
13	1094	1093	1091	1090	1088	1087	1085	1080	1071	1069	*1063	*1063
14	1093	1091	1089	1087	1085	1084	1083	1081	1078	1075	1075	*1074
15	1094	1093	1091	1090	1088	1085	1082	1076	1069	*1066	1067	1073
16	1094	1094	1093	1091	1088	1087	1087	1085	1080	*1079	1080	1087
17	*1093	1091	1090	1089	1087	1085	1084	1077	1064	*1062	1063	1069
18	*1086	1085	1084	1083	1083	1082	1078	1068	1061	*1056	1058	1061
19	1082	1083	1081	1080	1081	1083	1080	1070	1065	*1063	1065	1066
20	1083	1081	1079	1078	1077	1081	1078	1074	1067	*1064	1066	1067
21	*1082	*1082	*1082	*1082	1078	1078	1077	1068	1056	*1054	1056	1056
22	*1073	*1073	1072	1071	1070	1070	1065	1065	1060	1055	1050	*1048
23	1066	1065	1065	1065	1065	1065	1063	1056	1050	1049	*1045	1050
24	*1074	1073	1073	1071	1069	1071	1068	1061	1049	*1046	1047	1047
25	*1067	1065	1064	1064	1062	1062	1058	1052	1037	1035	*1034	1037
26	1059	1058	1059	1059	1060	1062	1059	1049	1042	*1040	1041	1044
27	1062	1061	1060	1059	1058	1059	1053	1044	1042	*1040	1045	1051
28	1059	1058	1057	1055	1055	1057	1057	1045	1030	1020	*1019	1022
29	*1054	1051	1048	1047	1047	1051	1045	1034	1024	*1022	1025	1030
30	1043	1042	1040	1039	1042	1039	1033	1025	*1022	1026	1027	1033
31	1039	1038	1036	1037	1038	1041	1033	1027	1025	*1024	1025	1027
Mean	1082	1081	1078	1079	1077	1078	1075	1068	1060	*1057	*1057	1060

EXTREME VALUES.

Easterly declination.						Horizontal force.				
Day.	Maxima.	Hour.	Minima.	Hour.	Daily range.	Maxima.	Hour.	Minima.	Hour.	Daily range.
1	0 51.03	7 a.	0 48.33	12 m. d.	2.70	0.38213	12 m. d.	0.38158	4 and 5 a.	0.00055
2	52.02	7 a.	47.91	12 m. d. and 1 p.	4.11	211	11 a.	157	7 p.	54
3	52.17	8 a.	48.47	11.27 a.	3.70	217	11 a.	154	5 a.	63
4	51.88	8 a.	48.62	1.27 p.	3.26	207	10.52 a.	149	9 p. and 12 m. n.	58
5	52.17	8 a.	49.18	3 p.	2.99	195	11 a. and 12 m. d.	149	3 a.	46
6	51.31	8 a.	48.19	1 p.	3.12	203	11.26 a.	157	7 a.	46
7	51.03	7 a.	47.91	1 p.	3.12	215	11 a.	159	8 p.	56
8	52.45	8 a.	48.62	1 p.	3.83	186	8.07 p.	158	4 and 5 p.	28
9	53.30	8 a.	49.18	1 p.	4.12	215	0.52 p.	117	4.56 p.	98
10	53.31	6.54 a.	49.61	0.12 p.	3.70	180	5.39 a.	141	6 p.	39
11	52.59	7 and 8 a.	49.18	11 a.	3.41	183	11 a.	145	1 a.	38
12	51.45	6.08 a.	48.19	0.15 p.	3.26	195	12 m. d.	149	3 a.	46
13	51.60	7 a.	48.76	0.30 p.	2.84	198	12 m. d.	159	6 a.	39
14	51.52	8 a.	48.97	11 a.	2.55	223	11.50 a.	166	10 p.	57
15	50.21	2 to 4 a.	47.37	11 a. and 12 m. d.	2.84	213	11 a.	167	1 a.	46
16	50.82	4 p.	47.84	11 a.	2.98	215	1 p.	172	11 p.	43
17	51.00	7 a.	47.74	10.39 a.	3.26	217	12 m. d.	173	12 m. n.	44
18	51.18	7.24 a.	47.92	1.15 p.	3.26	209	11.17 a.	159	9 p.	50
19	52.36	7 and 8 a.	48.81	12 m. d.	3.55	218	12 m. d.	171	1 a.	47
20	50.98	7 and 8 a.	48.85	11 a.	2.13	210	12 m. d. and 1 p.	177	6 p.	33
21	50.87	7 and 8 a.	49.31	11.30 a.	1.56	211	12 m. d.	175	7 p.	36
22	51.48	7 and 8 a.	49.49	12 m. d.	1.99	220	0.30 p.	183	6 to 9 p.	37
23	52.51	7.24 a.	49.10	11 a.	3.41	216	10 and 11 a.	185	5 a.	31
24	53.26	8 a.	48.43	0.27 p.	4.83	237	11 a.	192	12 m. n.	45
25	52.45	6.42 a.	47.05	12 m. d.	5.40	223	11 a.	178	11 p.	45
26	52.77	7 a.	48.23	0.18 p.	4.54	215	12 m. d. and 1 p.	185	1 a.	30
27	52.10	7 a.	46.82	12 m. d.	5.28	231	11 a.	180	5 a.	51
28	51.37	7 and 8 a.	46.11	12 m. d.	5.26	230	12 m. d.	186	5 and 6 p.	44
29	51.79	7 a.	47.96	11 a.	3.83	243	12 m. n.	180	11 a.	63
30	51.37	7 a.	45.83	11 a.	5.54	239	10.27 a.	184	6 p.	55
31	51.08	7 a.	47.11	11 a.	3.97	281	10 and 11 a.	186	12 m. n.	45
Mean	51'.79		48'.23		3'.56	213		166		47

MAGNETIC OBSERVATIONS FOR MAY, 1902.

23

VERTICAL FORCE (0.1 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
1071	1077	1086	1093	1098	1099	1099	1098	1099	1100	*1101	1100	1089
1074	1086	1096	1100	1101	*1102	*1102	1100	1101	1101	1101	1100	1089
1065	1073	1082	1086	1092	1091	1091	1091	1090	1090	1089	1088	1085
1063	1066	1070	1080	1082	1084	1086	1086	1087	*1089	1088	1088	1079
1074	1079	1084	1088	1091	1091	1092	1091	1091	1093	1093	1092	1085
1066	1076	1084	*1092	1091	1089	*1092	1090	1090	1091	*1092	*1092	1074
1080	1085	1094	1097	*1098	1097	*1098	1096	1095	1095	1096	1096	1088
1071	1082	1085	1089	1092	1092	1094	1095	1096	1093	1094	1094	1087
1077	1087	1095	1101	*1106	1104	1098	1098	1098	1102	1103	1103	1091
1095	1098	1104	1110	*1111	*1111	1108	1106	1106	1106	1106	1105	1098
1083	1086	1092	1096	1097	1097	1097	1097	1097	1096	1096	1096	1093
1080	1086	1097	1104	*1106	1103	1102	1102	1102	1100	1100	1097	1092
1072	1081	1089	1091	1093	1094	*1096	*1096	*1096	*1096	1095	1094	1086
1076	1080	1084	1087	1090	1092	1092	1092	1092	1093	*1094	*1094	1086
1076	1083	1090	1093	*1096	*1096	1094	1093	1093	1093	1094	1094	1086
1091	1094	1097	1099	*1100	1099	1099	1099	1099	1096	1094	1092	1092
1074	1078	1083	1086	1088	1088	1088	1088	1087	1086	1086	1086	1082
1062	1065	1075	1077	1079	1080	1083	1085	1085	1084	1084	1082	1076
1069	1073	1083	1088	1090	*1092	*1092	1088	1086	1085	1084	1083	1080
1070	1078	1081	1082	1084	1084	1085	*1086	1085	1084	1083	1083	1078
1058	1058	1059	1066	1071	1071	1072	1073	1074	1073	1072	1073	1070
1050	1056	1061	1064	1066	1064	1065	1065	1065	1066	1067	1067	1064
1055	1061	1064	1069	1072	1073	*1076	1073	1073	1073	1075	1075	1064
1051	1056	1067	*1074	*1074	1071	1070	1070	1069	1070	1069	1069	1065
1046	1050	1058	1061	1059	1059	1061	1059	1059	1060	1059	1058	1056
1046	1054	1059	1062	1063	1064	*1065	*1065	1064	1063	1064	1064	1057
1059	1064	1072	1074	*1077	1069	1068	1067	1065	1064	1062	1060	1060
1030	1041	1051	1061	*1062	1061	1061	1060	1060	1059	1058	1056	1050
1028	1030	1033	1040	1042	1044	1045	1044	1042	1042	1043	1044	1040
1037	1045	1051	*1053	1050	1047	1047	1047	1046	1045	1043	1041	1040
1029	1031	1036	1039	1041	1043	*1045	1044	1043	1041	1040	1038	1036
1064	1070	1076	1081	*1083	1082	*1083	1082	1082	1082	1081	1081	1075

EXTREME VALUES.

Vertical force.					Northerly dip.					
Maxima.	Hour.	Minima.	Hour.	Daily range.	Daily mean.	Maxima.	Hour.	Minima.	Hour.	Daily range.
0. 11101	11 p.	0. 11063	11 a.	0.00038	16 11.80	16 13.03	11 p.	16 08.84	11 a.	4.19
1102	6 and 7 p.	1060	11 a.	42	11.89	13.36	7 p.	8.57	11 a.	4.79
1099	1 a.	1064	12 m. d.	35	11.51	13.09	1 a.	8.83	12 m. d.	4.26
1089	10 p.	1058	11 a.	31	11.18	12.42	10 p.	8.68	10. 52 a.	3.74
1093	10 and 11 p.	1070	11 a.	23	11.63	12.54	11 p.	9.78	11 a.	2.76
1092	various.	1063	12 m. d.	29	10.70	12.41	7 p.	9.08	12 m. d.	3.33
1098	5 and 7 p.	1070	11 a.	28	11.76	12.81	8 p.	9.30	11 a.	3.51
1100	8. 07 p.	1067	11 a.	33	11.83	12.72	3 a.	9.80	11 a.	2.92
1106	5 p.	1063	11 a.	43	12.33	14.61	5 p.	8.92	11 a.	5.69
1111	5 and 6 p.	1075	10 a.	36	13.12	14.49	6 p.	11.02	10 a.	3.47
1105	1 a.	1071	11 a.	34	12.61	13.90	1 a.	10.16	11 a.	3.74
1106	5 p.	1070	10 a.	36	12.34	13.60	5 p.	9.93	10 a.	3.67
1096	7 to 10 p.	1063	11 and 12 m. d.	33	11.62	12.55	1 a.	9.13	12 m. d.	3.42
1094	11 and 12 m. n.	1074	12 m. d.	20	11.33	12.40	10 p.	9.52	12 m. d.	2.88
1096	5 and 6 p.	1066	10 a.	30	11.40	12.45	1 a.	9.10	11 a.	3.35
1100	5 p.	1078	10. 30 a.	22	11.83	12.68	8 and 9 p.	10.14	10. 30 a.	2.54
1093	1 a.	1060	10. 24 a.	33	10.90	12.15	1 a.	8.47	10. 24 a.	3.68
1086	1 a.	1056	10 a.	30	10.57	11.90	9 p.	8.45	10 a.	3.45
1092	6 and 7 p.	1063	10 a.	29	10.81	12.00	6 p.	8.89	11 a.	3.11
1086	8 p.	1064	10 a.	22	10.59	11.38	6 p.	9.18	12 m. d.	2.20
1082	1 to 4 a.	1054	10 a.	28	9.96	11.19	4 a.	8.24	12 m. d.	2.95
1073	1 and 2 a.	1047	0. 30 p.	26	9.33	10.25	2 a.	7.27	0. 30 p.	2.98
1076	7 p.	1045	11 a.	31	9.22	10.26	7 p.	7.21	11 a.	3.05
1074	various.	1046	10 a.	28	9.13	10.14	1 a.	6.87	11 a.	3.27
1067	1 a.	1034	11 a.	33	8.58	9.53	1 a.	5.88	11 a.	3.65
1065	7 and 8 p.	1040	10 a.	25	8.68	9.51	7 p.	6.96	10 a.	2.55
1077	5 p.	1040	10 a.	37	8.86	10.39	5 p.	6.53	10 a.	3.86
1062	5 p.	1019	11 a.	43	7.81	9.34	5 p.	4.76	11 a.	4.58
1054	1 a.	1022	10 a.	32	6.96	8.29	1 a.	4.72	10 a.	3.57
1053	4 p.	1021	10. 40 a.	32	7.13	8.37	4 p.	4.83	10. 27 a.	3.54
1045	7 p.	1024	10 a.	21	6.77	7.73	7 p.	5.10	10 a.	2.63
1086		1055		31	10'. 47	11'. 66		8'. 20		3'. 46

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

EASTERLY DECLINATION (0° 40' + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	9'.52	9'.66	9'.81	9'.81	9'.95	11'.08	*11'.65	*11'.65	10'.09	8'.95	7'.96	*7'.39
2-----	9.24	9.24	9.24	9.24	9.95	11.37	*11.65	10.80	8.67	7.25	6.40	*6.26
3-----	9.24	9.24	9.24	9.38	9.66	10.23	*11.37	10.23	8.53	7.25	6.68	*6.11
4-----	9.26	9.40	9.54	9.54	9.54	11.39	*12.81	12.24	10.68	9.40	8.12	7.55
5-----	9.12	9.40	9.54	9.54	9.82	11.39	*11.81	10.96	9.68	8.27	7.88	7.17
6-----	9.45	9.59	9.59	9.59	9.73	10.72	*11.00	10.72	9.02	8.03	7.17	*6.04
7-----	9.16	9.45	9.59	9.45	9.73	10.30	11.01	*11.15	10.30	9.45	8.17	7.74
8-----	9.59	9.73	9.73	9.73	9.73	11.43	*12.17	*12.17	11.43	9.73	8.03	7.03
9-----	9.30	9.45	9.59	9.59	9.59	10.44	11.72	*12.15	11.43	10.72	9.73	8.31
10-----	9.30	9.45	9.73	9.59	9.59	9.87	10.58	*10.72	10.01	9.02	8.03	7.17
11-----	9.16	9.59	9.59	9.59	9.73	10.30	11.29	*11.58	11.15	10.44	9.73	9.59
12-----	9.31	9.46	9.60	9.74	9.74	9.88	*11.16	10.73	9.60	8.89	8.18	*8.04
13-----	9.32	9.61	9.75	9.75	9.75	10.32	*10.46	9.75	8.90	8.47	*8.05	8.19
14-----	9.19	9.19	9.19	9.19	9.19	9.76	*10.19	*10.19	9.48	8.62	8.20	7.91
15-----	9.20	9.20	9.34	9.34	9.49	9.63	9.91	9.91	9.06	8.49	8.35	8.35
16-----	9.50	9.64	9.78	9.78	9.78	10.77	11.20	*11.34	9.92	9.21	8.50	8.50
17-----	9.51	9.65	9.65	9.65	9.65	9.79	10.78	*11.21	10.78	9.93	8.80	8.37
18-----	9.37	9.52	9.66	9.66	9.80	11.08	*11.79	*11.79	10.79	9.52	7.24	*6.39
19-----	9.38	9.53	9.67	9.81	9.81	9.95	*10.24	9.53	8.96	8.53	8.25	7.96
20-----	9.68	9.68	9.82	9.82	9.82	10.25	*11.24	*11.24	10.53	9.82	8.40	7.41
21-----	9.55	9.69	9.69	9.69	9.83	11.25	*11.82	11.25	9.55	7.84	6.85	*6.71
22-----	9.70	9.70	9.70	9.70	9.70	10.79	12.25	*12.54	10.41	8.56	7.28	*5.72
23-----	9.28	9.42	9.42	9.42	9.71	10.56	11.70	*11.98	10.42	9.14	7.44	6.16
24-----	9.43	9.43	9.58	9.58	9.72	10.57	11.42	*11.85	11.28	10.79	9.58	8.72
25-----	9.59	9.59	9.87	9.73	9.87	11.01	*11.43	10.86	10.01	8.45	7.60	7.17
26-----	9.19	9.31	9.31	9.19	9.31	10.31	11.30	*11.73	10.31	8.46	6.76	*5.48
27-----	9.20	9.32	9.46	9.32	9.32	9.61	10.46	*11.03	10.46	9.46	7.90	7.48
28-----	8.91	8.91	8.91	9.05	9.05	9.47	10.33	*10.75	9.76	8.62	7.91	7.20
29-----	9.34	9.48	9.34	9.22	9.06	9.91	10.90	*11.05	10.76	8.77	7.64	*6.64
30-----	9.35	9.64	9.35	9.35	9.49	9.78	*10.63	10.49	9.64	8.64	7.93	7.51
Mean	9'.34	9'.47	9'.54	9'.53	9'.64	10'.44	*11'.21	11'.12	10'.05	8'.96	7'.96	*7'.34

HORIZONTAL FORCE (0.38 ... + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	192	195	198	197	198	203	211	218	219	224	227	*228
2-----	198	197	199	198	*194	196	205	215	226	235	*236	233
3-----	205	206	208	208	207	212	221	227	230	*238	*238	233
4-----	206	*205	206	210	210	219	227	241	251	252	*254	250
5-----	211	211	209	209	208	216	227	233	237	*241	240	236
6-----	210	213	216	217	216	215	229	240	247	257	260	*262
7-----	209	209	213	210	209	213	218	226	235	*243	242	239
8-----	210	210	211	211	212	217	225	236	244	248	*256	251
9-----	*205	209	211	211	211	213	217	222	228	236	*246	243
10-----	217	218	218	218	*214	218	221	231	246	254	*258	254
11-----	*217	224	225	227	230	235	240	245	248	258	254	*265
12-----	218	219	217	218	216	213	217	227	235	243	*247	246
13-----	215	214	214	214	213	217	224	238	245	253	*260	*260
14-----	214	213	215	213	211	209	213	219	229	244	249	250
15-----	*212	215	*212	213	215	216	216	218	226	238	241	*242
16-----	222	219	220	220	221	228	236	246	251	258	263	*265
17-----	213	215	216	215	*212	216	223	228	239	*246	244	241
18-----	218	218	223	222	223	227	232	234	245	*252	*252	251
19-----	221	222	221	219	*217	221	230	236	243	248	256	*259
20-----	226	225	226	223	221	222	229	232	241	256	*264	258
21-----	221	221	222	222	221	226	230	243	255	*265	263	256
22-----	221	223	223	225	219	222	228	237	251	*261	*261	252
23-----	210	211	210	209	*206	*206	211	217	232	*247	250	247
24-----	*212	*212	213	214	215	219	228	238	245	253	254	251
25-----	221	222	226	229	228	228	230	231	230	241	251	*259
26-----	217	222	222	225	225	226	229	235	242	*250	246	244
27-----	219	216	217	216	216	*213	214	222	234	242	*244	243
28-----	218	216	215	216	215	*213	219	231	239	244	*252	249
29-----	215	219	222	224	219	217	227	230	248	253	259	262
30-----	214	216	220	221	221	221	226	234	249	245	*254	241
Mean	214	215	216	216	215	217	223	231	240	248	*251	249

MAGNETIC OBSERVATIONS FOR JUNE, 1902.

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EASTERLY DECLINATION ($0^{\circ} 40'$ + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
7'.82	8'.53	8'.81	9'.52	9'.81	9'.38	9'.38	9'.24	9'.24	9'.24	9'.24	9'.24	9'.47
6.82	7.68	8.53	9.10	9.38	9.10	8.95	8.95	8.95	8.81	8.95	9.10	8.90
6.97	7.53	8.67	9.66	9.95	9.52	9.24	9.24	9.24	9.10	9.10	9.24	8.94
*7.27	*7.27	8.12	9.12	9.54	9.54	9.12	8.97	8.97	8.83	8.83	8.83	9.33
8.03	8.45	9.45	10.01	9.87	9.16	9.16	9.16	9.16	9.16	9.16	9.30	9.36
*6.04	7.03	7.88	9.30	9.30	9.02	9.16	9.16	9.16	9.02	9.02	9.02	8.91
*7.74	8.17	8.88	9.59	10.01	9.87	9.59	9.45	9.45	9.45	9.45	9.59	9.41
*6.75	6.89	8.03	9.16	9.87	9.87	9.59	9.45	9.16	9.02	9.02	9.16	9.47
8.31	7.88	*7.46	8.31	9.45	9.73	9.45	9.16	9.16	9.16	9.16	9.16	9.50
*7.03	*7.03	7.74	8.59	9.02	9.45	9.45	9.16	9.02	9.02	9.02	9.02	9.03
9.16	*8.74	8.88	9.02	9.30	9.16	9.02	8.88	8.88	8.88	9.02	9.16	9.58
*8.04	8.60	8.46	8.89	9.31	9.03	9.17	9.17	8.89	8.89	9.03	9.03	9.20
8.33	8.33	8.47	9.04	9.32	9.32	9.47	9.32	9.18	9.18	9.04	9.04	9.18
7.63	*7.49	7.77	8.20	8.91	9.05	9.33	9.19	9.05	9.19	9.19	9.19	8.94
*8.21	8.92	9.49	*10.05	9.77	9.34	9.20	8.63	8.35	8.78	8.92	9.06	9.12
8.36	*7.22	7.79	8.22	8.50	9.07	9.21	9.07	9.07	9.21	9.35	9.35	9.26
8.37	*8.23	*8.23	*8.23	9.22	9.36	8.94	8.80	8.94	9.08	9.08	9.36	9.32
6.82	7.24	7.67	8.38	8.52	8.52	8.81	8.81	8.81	8.81	8.95	9.23	9.05
8.25	8.53	8.82	9.53	9.38	9.10	8.96	9.10	9.10	9.24	9.38	9.53	9.19
*7.12	7.83	8.26	8.68	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.39	9.32
7.27	8.13	8.41	8.69	9.12	8.69	8.84	8.84	8.84	9.12	9.26	9.55	9.10
6.86	7.71	8.28	8.70	9.70	9.41	8.99	8.99	9.13	9.27	8.99	9.27	9.22
*6.02	6.87	7.72	8.71	9.71	9.28	9.28	9.14	9.14	9.28	9.28	9.42	9.10
7.87	*7.59	7.87	8.72	9.15	9.27	8.87	8.87	9.01	9.01	9.15	9.29	9.44
6.89	*6.75	7.60	7.88	8.31	8.31	8.45	8.59	8.73	8.88	9.02	9.02	8.90
5.62	6.05	6.90	7.75	8.46	8.46	8.32	8.60	8.60	8.74	8.89	9.03	8.59
7.48	7.33	*6.91	7.48	8.19	8.33	8.61	8.75	8.90	8.90	8.90	9.04	8.83
7.06	*6.78	7.06	7.63	8.20	8.34	8.62	8.62	8.91	9.05	9.05	9.19	8.64
6.79	7.64	7.64	7.35	7.78	8.35	8.49	8.77	8.77	9.06	9.22	9.48	8.81
7.51	*7.36	7.51	8.50	8.78	8.93	8.93	8.78	8.64	8.78	8.93	9.07	8.90
7'.41	7'.66	8'.11	8'.73	9'.17	9'.11	9'.06	9'.00	8'.99	9'.05	9'.10	9'.21	9'.13

HORIZONTAL FORCE (0.38 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
225	216	208	198	197	188	*187	*187	192	193	194	189	204
223	210	199	195	*194	196	197	200	197	205	203	203	206
232	217	208	202	*200	201	202	205	204	203	202	204	213
242	237	226	221	220	215	212	211	212	212	212	213	224
233	226	218	214	211	208	*207	*207	*207	209	210	210	219
257	250	239	228	217	211	212	212	214	212	209	*205	227
234	230	218	209	205	*202	206	*202	206	208	210	210	217
237	226	221	214	212	208	208	208	208	*207	*207	*207	221
241	235	227	222	217	214	213	213	213	214	215	215	221
250	239	232	225	218	215	*214	*214	215	*214	216	218	227
261	254	236	224	224	220	222	222	224	223	224	218	234
241	236	221	216	214	215	209	214	213	216	215	216	222
254	245	235	230	221	212	208	208	*207	210	211	215	226
*261	244	236	216	206	*203	*203	*203	204	207	209	209	220
233	228	220	215	*212	*212	214	222	236	216	*212	214	221
256	259	231	227	220	218	*213	*213	214	215	215	*213	231
242	237	228	223	215	213	*212	214	215	218	217	217	223
244	238	229	220	*213	217	221	221	220	222	223	222	229
254	252	241	234	227	226	222	219	220	220	220	222	231
255	248	241	229	222	220	218	220	216	*215	217	218	231
248	240	228	221	224	222	225	223	223	*213	219	220	227
247	237	228	216	208	200	198	198	*196	201	202	203	224
242	235	226	216	212	210	210	210	210	210	209	210	219
253	*256	250	235	227	220	220	220	221	220	220	221	230
255	253	244	235	225	218	218	216	213	*212	213	214	231
242	239	235	224	217	219	219	219	223	218	213	*210	228
238	234	232	225	217	214	221	218	218	216	216	215	223
244	241	234	228	225	222	222	222	217	216	216	216	226
*264	257	249	233	224	213	215	*205	*205	207	211	216	229
246	246	227	220	211	*202	207	208	209	209	211	211	223
245	239	229	221	215	*212	*212	*212	*212	*212	*212	*212	224

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

VERTICAL FORCE (0.1 . . . + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	1037	1036	1037	1037	*1039	1037	1034	1024	1016	1016	*1013	*1013
2	1028	1029	1029	1029	1029	*1030	1021	1012	1009	1003	*1002	1004
3	*1026	*1026	1025	1025	*1026	*1026	1024	1005	0998	0998	*0996	0999
4	1016	1015	1014	1015	1015	1021	1018	1008	0994	0990	*0989	0992
5	1018	1018	1018	1018	1019	*1022	1012	1006	1000	*0998	*0998	*0998
6	1016	1016	1015	1016	1016	1018	1014	1011	1001	1001	0994	*0992
7	*1026	1025	1024	1021	1019	1018	1017	1014	1007	1004	*0999	1003
8	1024	1022	1022	1020	1020	1024	1019	1011	0999	*0988	*0988	0991
9	1028	1028	1028	1027	1026	1028	1028	1023	1018	1011	1002	*1001
10	1035	1034	1034	1035	1034	1035	1034	1030	1027	1021	*1018	*1018
11	1039	1041	1040	1039	1037	1036	1037	1031	1021	1018	1018	1017
12	1045	1045	1044	1043	1041	1043	1043	1038	1034	1034	1031	*1030
13	1048	1046	1044	1042	1041	1041	1040	1033	*1025	1028	1032	1034
14	1048	1047	1045	1045	1044	1044	1041	1038	1028	1027	1026	*1022
15	1049	1048	1047	1046	1044	1043	1041	1040	1037	1036	1035	*1032
16	1052	1051	1050	1049	1048	1047	1044	1040	1026	1025	*1022	1024
17	1049	1048	1047	1047	1047	1046	1048	1041	1037	1030	*1025	1028
18	1040	1039	1040	1039	1041	*1044	1042	1026	1007	*0998	*0998	1001
19	1025	1025	1025	1025	1026	1024	1020	1012	1005	1005	1004	*1003
20	*1029	1028	1028	1027	1025	1027	1027	1019	1017	1009	*1007	1008
21	1029	1027	1027	1027	1026	1028	1020	1014	*1007	*1007	1012	1023
22	*1033	*1033	1031	1032	1031	1031	1029	1012	1004	1002	*0998	1005
23	1034	1034	1034	1033	1032	1033	1033	1027	1019	1015	1013	*1010
24	1033	1032	1032	1032	1033	1034	1029	1026	1017	1010	1006	*1005
25	1037	1038	1037	1036	1037	1037	1035	1026	1022	*1014	1018	*1019
26	1041	1040	1039	1039	1039	1038	1035	1026	1011	1010	*1008	1015
27	1042	1040	1039	1038	1037	1039	1038	1035	1026	1020	*1016	*1016
28	1042	1040	1038	1038	1036	1035	1035	1032	1019	1016	*1015	1020
29	1044	1043	1041	1042	1041	1043	1041	1038	1029	1021	1016	*1012
30	1048	*1049	1048	1048	1048	1048	1047	1045	1037	1036	1033	*1032
Mean	*1035	*1035	1034	1034	1033	1034	1032	1025	1017	1013	*1011	1012

EXTREME VALUES.

Day.	Easterly declination.					Horizontal force.				
	Maxima.	Hour.	Minima.	Hour.	Daily range.	Maxima.	Hour.	Minima.	Hour.	Daily range.
1	0 51.93	7.20 a.	0 47.39	12 m.d.	4.54	0.38228	12 m.d.	0.38187	7 and 8 p.	0.00041
2	51.65	7 a.	46.26	12 m.d.	5.39	236	11 a.	190	0.01 a.	46
3	51.37	7 a.	46.11	12 m.d.	5.26	238	10 and 11 a.	200	5 p.	38
4	52.81	7 a.	47.13	1.30 p.	5.68	259	10.38 a.	205	2 a.	54
5	51.81	7 a.	47.17	12 m.d.	4.64	241	10 a.	207	7 to 9 p.	34
6	51.00	7 a.	46.04	12 m.d., 1 p.	4.96	208	0.44 p.	205	12 m.n.	63
7	51.15	8 a.	47.60	0.18 p.	3.55	243	10 a.	202	6 and 8 p.	41
8	52.57	7 and 8 a.	46.61	1.20 p.	5.96	256	11 a.	207	10 p. to 12 m.n.	49
9	52.15	8 a.	47.46	3 p.	4.69	246	11 a.	205	1 a.	41
10	50.72	8 a.	47.03	1 and 2 p.	3.69	258	11 a.	213	9.18 p.	45
11	51.58	8 a.	48.60	2.24 p.	2.98	265	12 m.d.	217	1 a.	48
12	51.16	7 a.	47.90	11.36 a.	3.26	247	11 a.	209	7 p.	38
13	50.60	6.22 a.	48.05	11 a.	2.55	262	11.21 a.	207	9 p.	55
14	50.19	7 and 8 a.	47.49	2 p.	2.70	268	0.15 p.	203	6 to 8 p.	65
15	50.05	4 p.	47.93	9.27 p.	2.12	245	11.31 a.	195	9.27 p.	50
16	51.34	8 a.	47.22	2 p.	4.12	266	11.12 a.m.	213	7.8 p., 12 m.n.	53
17	51.21	8 a.	48.37	12 m.d. to 4 p.	2.84	246	10 a.	212	3 a. and 7 p.	34
18	51.79	7 and 8 a.	46.39	12 m.d.	5.40	255	10.33 a.	213	5 p.	42
19	50.24	7 a.	47.82	11.27 a.	2.42	259	12 m.d.	217	5 a.	42
20	51.24	7 and 8 a.	47.12	1 p.	4.12	264	11 a.	215	10 p.	49
21	51.82	7 a.	46.43	11.36 a.	5.39	265	10 a.	209	9.40 p.	56
22	52.54	8 a.	45.58	0.12 p.	6.96	262	11.02 a.	196	9 p.	66
23	51.28	8 a.	46.02	1 a.	5.26	252	1.21 a.	202	0.12 a.	50
24	51.85	8 a.	47.59	2 p.	4.26	257	1.36 p.	212	1 and 2 a.	45
25	51.43	7 a.	46.75	2 p.	4.68	259	12 m.d.	212	10 p.	47
26	51.73	8 a.	45.19	0.16 p.	6.54	254	10.18 a.	210	12 m.n.	44
27	51.07	8 a.	46.91	3 p.	4.16	244	11 a.	210	0.12 a.	34
28	50.89	7.40 a.	46.78	2 p.	4.11	252	11 a.	213	6 a.	39
29	51.05	8 a.	46.36	0.20 p.	4.69	264	1 p.	200	8.40 p.	64
30	50.77	7.11 a.	47.36	2 p.	3.41	256	10.36 a.	202	6 p.	54
Mean	51'.37		47'.03		4'.34	254		206		48

MAGNETIC OBSERVATIONS FOR JUNE, 1902.

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VERTICAL FORCE (0.1.... + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
1016	1018	1025	1029	1032	1031	1031	1029	1028	1029	1028	1029	1028
1011	1018	1025	1027	1027	1027	1026	1026	1026	1025	1024	1025	1021
1002	1008	1013	1021	1019	1017	1017	1018	1018	1018	1017	1017	1015
0995	1001	1008	1013	1015	1014	1014	1014	1015	1016	1017	1018	1009
1004	1007	1010	1012	1011	1011	1012	1012	1013	1014	1015	1016	1011
0994	1006	1019	1023	1020	1020	1022	1022	1023	1023	1023	*1024	1014
1010	1013	1021	1025	*1026	1023	1023	1023	1024	1024	1025	1024	1018
0998	1007	1016	1022	*1027	1026	1026	1026	1026	1025	1025	1026	1016
1009	1012	1021	1030	1033	*1035	*1035	*1035	*1035	*1035	*1035	*1035	1025
1020	1028	1035	*1043	1042	1041	1042	1040	1039	1040	1039	1039	1033
*1016	1022	1029	1035	1041	1041	1041	1040	1042	1043	*1045	1044	1034
*1030	1033	1034	1040	1040	1042	1045	1044	1042	1045	*1046	*1046	1040
1034	1038	1045	1049	*1050	1048	1049	1047	1046	1046	1047	1047	1042
1025	1029	1036	1038	1042	1047	*1051	*1051	*1051	1050	1048	1047	1040
1036	1039	1043	1048	1048	1047	*1053	1051	1052	*1053	1052	1050	1045
1024	1029	1040	1046	1052	*1053	1052	1051	1049	1049	1049	1049	1043
1030	1031	1034	1043	1044	1043	1043	1043	1041	1042	1040	1039	1040
1012	1014	1017	1019	1021	1022	1021	1021	1021	1022	1024	1024	1023
1004	1008	1017	1027	1026	1025	1027	1027	1027	*1028	*1028	*1028	1020
1009	1017	1019	1021	1025	1025	1026	1027	1027	1027	1027	1028	1022
1031	*1032	1030	1031	*1032	1029	1031	1028	1029	*1032	*1032	1031	1026
1017	1019	1022	1028	1028	1029	1030	1031	1032	*1033	*1033	*1033	1024
1018	1026	1032	*1038	1036	1035	1034	1034	1034	1034	1033	1032	1029
1009	1011	1018	1025	1031	1033	1034	1034	1034	1034	*1035	*1035	1026
1023	1027	1028	1033	1040	1041	*1042	1041	1041	1041	1041	*1042	1033
1023	1031	1040	1041	*1043	1041	1041	1041	*1043	*1043	*1043	1042	1034
1020	1021	1024	1033	1037	1040	1043	1043	*1044	1043	1042	1041	1034
1025	1026	1029	1037	1042	*1043	*1043	1042	1042	1042	1042	1042	1034
1018	1024	1033	1035	1044	1046	1046	1045	1046	*1050	1047	1049	1037
1036	1037	1040	1045	1047	*1049	1048	1047	1047	1048	1048	1046	1044
1017	1021	1027	1032	1034	1034	*1035	1034	*1035	*1035	*1035	*1035	1029

EXTREME VALUES.

Vertical force.					Northerly dip.					
Maxima.	Hour.	Minima.	Hour.	Daily range.	Daily mean.	Maxima.	Hour.	Minima.	Hour.	Daily range.
6. 11039	5 a.	0. 11013	11 a. and 12 m. d.	0. 00026	16 06. 08	16 07. 14	5 a.	16 04. 26	12 m. d.	2. 88
1030	6 a.	1002	11 a.	28	5. 45	6. 44	6 a.	3. 16	11 a.	3. 28
1026	1, 2, 5 and 6 a.	0996	11 a.	30	4. 79	5. 89	1 a.	2. 61	11 a.	3. 28
1021	6 a.	0989	11 a.	32	4. 03	5. 14	6 a.	1. 61	10. 38 a.	3. 53
1022	6 a.	0998	10 a. to 12 m. d.	24	4. 81	5. 30	6 a.	2. 71	10 a.	2. 59
1024	12 m. n.	0991	0. 55 p.	33	4. 37	5. 73	12 m. n.	1. 71	12 m. d.	4. 02
1026	1 a. and 5 p.	0999	11 a.	27	4. 94	5. 89	5 p.	2. 76	11 a.	3. 13
1027	5 p.	0987	11. 30 a.	40	4. 68	5. 84	12 m. n.	1. 48	11. 30 a.	4. 36
1035	6 p. to 12 m. n.	0996	11. 34 a.	39	5. 42	6. 45	7 to 9 p.	2. 89	11. 34 a.	3. 56
1013	4 p.	1018	11 a. and 12 m. d.	25	5. 95	7. 00	7 p.	3. 96	11 a.	3. 04
1045	11 p.	1016	1 p.	29	5. 86	7. 07	12 m. n.	3. 71	12 m. d.	3. 36
1047	11. 42 p.	1029	0. 54 p.	18	6. 65	7. 38	7 p.	5. 25	0. 54 p.	2. 13
1050	5 p.	1025	9 a.	25	6. 72	7. 73	7 p.	4. 85	9 a.	2. 88
1051	7 to 9 p.	1022	12 m. d.	29	6. 69	8. 02	7 and 8 p.	4. 30	0. 15 p.	3. 72
1058	8. 39 p.	1032	12 m. d.	26	7. 09	7. 92	7 p.	5. 50	12 m. d.	2. 42
1053	6 p.	1022	11 a.	31	6. 68	7. 94	7 p.	4. 17	11 a.	3. 77
1049	1 a.	1024	11. 20 a.	25	6. 63	7. 61	1 a.	4. 84	11. 20 a.	2. 77
1044	6 a.	0998	10 and 11 a.	46	5. 07	6. 86	6 a.	2. 37	10. 33 a.	4. 49
1028	10 p. to 12 m. n.	1003	12 m. d.	25	4. 77	5. 70	10 and 11 p.	2. 69	12 m. d.	3. 01
1029	1 a.	1006	11. 12 a.	23	4. 95	5. 75	10 p. and 12 mn.	2. 60	11. 12 a.	3. 15
1033	4. 40 p.	1006	9. 36 a.	27	5. 37	6. 20	10 p.	2. 88	10 a.	3. 32
1034	11. 14 p.	0996	11. 18 a.	38	5. 27	6. 61	9 a., 11. 14 p.	2. 12	11. 06 a.	4. 49
1038	4 p.	1010	12 m. d.	28	5. 80	6. 63	0. 12 a.	3. 56	12 m. d.	3. 07
1035	11 p. and 12 mn	1005	12 m. d.	30	5. 51	6. 31	1 a.	3. 05	12 m. d.	3. 26
1042	7 p. and 12 mn.	1014	10 a.	28	5. 79	7. 00	12 m. n.	4. 02	12 m. d.	2. 98
1044	11. 18 p.	1007	10. 40 a.	37	6. 01	7. 17	11. 18 p.	3. 30	10. 18 a.	3. 87
1044	9 p.	1016	11 a. and 12 m. d.	28	6. 13	7. 10	0. 12 a.	4. 13	11 a.	2. 97
1043	6 and 7 p.	1015	11 a.	28	6. 05	6. 96	10 p. to 12 m. n.	3. 85	11 a.	3. 11
1050	10 p.	1012	12 m. d.	38	6. 23	7. 83	10 p.	3. 37	12 m. d.	4. 46
1049	2 a. and 6 p.	1032	12 m. d.	17	6. 95	7. 87	6 p.	5. 30	11 a.	2. 57
1038		1009		29	5'. 68	6'. 75		3'. 43		3'. 32

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

EASTERLY DECLINATION ($0^{\circ} 40' +$ the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	8'.94	8'.94	8'.94	8'.94	9'.08	9'.65	9'.93	*10'.64	10'.21	9'.93	8'.65	8.23
2	8.80	8.66	8.66	8.66	8.66	9.94	10.37	*11.36	11.22	10.51	9.09	8.52
3	8.82	8.82	8.82	8.82	8.68	9.39	9.53	9.68	9.82	*9.96	8.97	*8.54
4	8.84	8.84	8.99	9.27	9.41	9.84	10.12	*10.83	9.98	8.56	*8.13	8.28
5	9.01	9.15	9.15	9.01	9.01	9.57	10.28	*10.57	10.28	10.00	8.86	*8.15
6	8.74	8.74	8.88	9.17	9.17	10.02	11.01	*11.44	10.87	9.31	7.61	6.75
7	8.90	9.05	9.19	9.33	9.47	10.18	11.32	*11.60	11.46	10.04	8.48	7.34
8	8.92	8.92	9.07	9.21	9.35	10.20	*11.48	11.20	9.35	8.64	7.50	6.08
9	8.94	9.09	9.09	9.09	9.09	9.94	10.36	*10.65	10.51	10.22	9.94	9.51
10	9.11	9.11	8.96	8.96	9.11	9.67	10.10	10.38	*10.53	10.10	7.69	*5.98
11	8.84	8.98	9.13	9.13	9.13	9.69	10.55	*11.54	11.26	11.11	10.40	9.13
12	8.86	8.86	8.86	9.00	9.15	10.00	10.42	10.57	10.14	8.72	7.44	7.16
13	9.02	9.02	9.17	9.17	9.31	9.59	11.01	*11.58	11.01	10.30	8.31	6.89
14	9.19	9.19	9.19	9.19	9.19	9.90	*10.18	10.04	9.90	8.76	7.34	6.49
15	8.92	9.06	9.21	9.21	9.63	10.77	*11.76	11.62	10.20	9.06	7.79	7.22
16	9.23	9.23	9.37	9.37	9.37	10.22	11.07	*11.21	10.22	8.94	*7.95	*7.95
17	9.10	9.10	8.96	8.96	9.10	9.96	*10.81	10.24	9.10	8.82	7.97	*7.40
18	9.12	9.12	9.12	9.12	9.55	10.40	*10.54	10.26	9.83	9.12	8.41	7.99
19	9.43	9.43	9.57	9.71	10.00	11.42	*11.98	11.13	10.28	8.86	7.58	6.87
20	9.16	9.31	9.45	9.73	9.87	*10.73	10.58	9.59	7.46	6.61	*5.90	7.03
21	9.33	9.47	9.61	9.75	10.04	11.60	*12.59	11.74	8.90	7.05	*5.92	6.06
22	9.35	9.35	9.49	9.63	9.77	10.62	*11.48	*11.48	10.48	9.06	7.78	7.22
23	9.37	9.37	9.65	9.93	10.22	11.64	*12.49	11.92	9.65	8.37	6.95	*6.67
24	9.53	9.53	9.81	9.81	9.95	10.95	*11.94	11.80	9.95	7.97	7.26	*6.97
25								11.38	9.97	8.98	7.99	*7.56
26	9.71	9.85	9.99	10.28	10.28	*10.42	*10.42	10.14	8.86	8.29	8.43	8.57
27	9.73	9.73	9.87	10.01	10.30	10.58	*11.15	10.44	9.16	8.45	7.74	*7.03
28	9.61	9.75	9.89	9.89	10.03	10.74	11.31	11.88	11.31	10.60	9.61	8.76
29	9.91	10.05	10.05	9.77	10.05	11.33	*11.62	10.62	9.34	8.21	*7.36	7.64
30	9.22	9.22	9.36	9.36	9.51	10.50	*11.07	*11.07	10.50	9.08	7.52	6.52
31	9.24	9.24	9.38	9.53	9.53	10.80	*11.09	10.38	8.96	8.53	7.68	7.25
Mean	9'.16	9'.21	9'.29	9'.37	9'.50	10'.34	*10'.94	10'.93	10'.02	9'.10	8'.01	*7'.48

HORIZONTAL FORCE (0.38 ... + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	211	214	213	212	*210	215	219	225	235	249	*256	255
2	223	223	224	223	221	220	225	232	243	254	*260	259
3	219	221	221	220	219	225	227	232	237	244	251	*254
4	222	221	225	229	227	228	240	246	262	*269	264	261
5	214	215	214	214	217	214	220	225	239	246	*247	245
6	214	215	217	215	217	219	227	239	254	264	*265	258
7	213	214	216	217	217	221	229	241	259	270	*271	269
8	220	221	220	219	218	219	225	233	253	265	267	*268
9	217	223	227	231	218	225	232	239	248	260	*263	258
10	219	221	220	221	218	217	219	223	235	250	*254	247
11	218	216	216	217	217	220	222	227	237	248	257	*258
12	211	216	220	221	221	223	228	244	249	262	*266	254
13	206	210	210	212	207	210	212	224	241	256	*263	262
14	*203	207	209	209	206	212	221	226	243	*246	244	245
15	219	219	217	217	*213	217	222	228	239	258	*265	264
16	224	225	222	223	222	222	212	219	218	230	241	*248
17	210	212	212	210	*209	212	221	221	230	237	242	*247
18	*214	*214	216	215	*214	216	218	216	221	231	245	262
19	222	219	218	217	211	224	233	242	243	*248	247	244
20	210	*208	209	*208	*208	211	219	229	230	239	243	*247
21	217	215	215	216	216	223	230	239	249	249	*253	249
22	213	213	*212	213	215	219	225	230	238	*244	240	232
23	218	219	218	219	218	226	230	245	255	*269	268	259
24	217	217	218	214	212	211	218	230	*244	240	232	212
25								192	186	210	217	229
26	*186	191	190	193	192	194	201	207	214	214	211	*221
27	198	197	197	194	193	*192	201	205	215	224	227	*229
28	196	196	196	196	196	196	204	212	226	239	*243	239
29	196	196	197	*195	196	196	198	200	205	209	212	214
30	198	201	202	203	203	202	206	215	225	234	*242	239
31	202	204	203	203	203	202	211	222	233	240	*243	241
Mean	212	213	213	213	212	214	220	226	236	245	*248	247

MAGNETIC OBSERVATIONS FOR JULY, 1902.

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EASTERLY DECLINATION ($0^\circ 40'$ + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
8'.23	7'.52	*7'.23	7'.80	8'.37	8'.51	8'.51	8'.65	8'.65	8'.79	8'.94	8'.94	8'.80
8.24	7.95	*7.67	8.38	8.52	8.52	8.66	8.80	8.66	8.66	8.66	8.80	9.00
8.68	9.39	9.11	9.39	8.97	8.82	8.68	8.82	8.68	8.68	8.68	8.82	9.02
8.28	8.56	8.70	8.70	8.56	8.42	8.56	8.56	8.56	8.70	8.70	8.84	8.93
8.30	8.58	8.86	9.57	9.72	9.15	8.72	8.72	8.72	8.72	8.72	8.72	9.15
*6.04	6.47	7.89	8.88	9.74	9.31	8.74	8.74	8.88	8.88	8.88	8.88	8.88
*7.06	7.34	8.48	8.90	9.05	9.05	8.76	8.76	8.76	8.76	8.76	8.90	9.12
*5.80	6.51	7.50	8.50	8.78	8.78	8.64	8.64	8.64	8.78	8.78	9.07	8.68
8.66	7.81	*7.67	8.38	8.66	8.66	8.66	8.66	8.66	8.66	8.66	8.80	9.10
6.12	6.69	7.54	8.54	8.54	8.68	8.68	8.68	8.68	8.68	8.82	8.82	8.67
8.70	*7.56	7.99	8.42	8.70	8.84	8.84	8.84	8.84	8.84	8.84	8.84	9.26
*7.02	7.30	7.87	8.72	8.72	8.72	8.72	8.72	8.72	8.86	8.86	8.86	8.76
*6.33	7.18	8.31	8.74	8.88	8.88	9.02	9.02	9.02	9.02	9.17	9.17	9.05
*6.20	6.63	7.91	8.48	9.19	9.04	8.90	8.90	8.90	8.90	8.90	8.90	8.73
*7.08	7.36	7.93	8.64	8.78	8.78	8.78	8.78	8.78	8.78	8.92	9.06	9.00
8.66	8.52	8.52	8.66	8.80	8.80	8.80	8.80	8.94	8.94	8.94	8.94	9.14
7.83	7.97	8.54	8.82	8.96	8.96	9.10	9.10	9.10	9.10	9.10	9.10	8.97
*7.85	8.13	8.56	8.98	9.12	8.98	8.84	8.84	8.98	8.98	8.98	9.12	9.08
*6.02	6.16	7.44	8.72	9.71	9.71	9.43	9.29	9.14	9.00	9.00	9.14	9.13
8.03	8.60	8.45	8.88	9.45	9.73	9.31	9.31	9.16	9.16	9.16	9.31	8.92
7.48	8.19	9.18	10.04	9.47	9.18	8.90	9.04	9.18	9.18	9.18	9.18	9.18
*6.93	7.50	8.64	9.77	10.34	10.06	9.49	9.35	9.20	9.20	9.20	9.20	9.35
7.38	7.66	8.09	8.94	9.08	9.08	9.08	8.94	8.94	8.94	9.08	9.22	9.19
7.54	8.39	9.10	10.10	9.67	9.10	8.96	8.96					
7.70	7.70	8.84	9.12	9.55	9.26	9.26	9.12	9.26	9.41	9.55	9.69	
8.86	*8.15	9.00	9.71	10.28	10.28	9.71	9.57	9.71	9.57	9.57	9.57	9.54
7.32	7.88	8.59	9.02	9.73	10.16	9.87	9.59	9.59	9.45	9.45	9.45	9.35
8.90	*8.61	*8.61	9.18	9.89	10.18	9.61	9.61	9.61	9.61	9.61	9.75	9.86
8.35	8.49	8.63	8.78	8.78	8.78	8.92	8.92	8.92	8.92	9.06	9.20	9.24
*6.38	7.66	7.80	8.80	9.22	9.22	9.22	9.08	9.08	9.08	9.22	9.22	9.03
*6.83	7.40	7.82	8.82	9.10	9.10	9.10	9.10	9.10	9.10	9.10	9.10	8.99
7'.51	7'.74	8'.27	8'.92	9'.17	9'.12	8'.98	8'.96	8'.97	8'.98	9'.02	9'.09	9'.07

HORIZONTAL FORCE (0.38 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
253	247	234	228	219	218	218	218	216	221	221	222	226
252	245	233	228	219	*217	218	219	220	219	*217	219	230
249	244	236	229	221	220	221	222	219	*217	219	220	229
249	242	231	224	213	205	207	205	*203	209	213	212	229
243	237	224	215	*208	210	213	216	215	215	216	216	222
255	242	223	215	208	*207	210	210	210	212	214	214	226
259	247	229	220	214	204	*202	205	216	218	218	219	229
258	247	238	223	212	214	214	215	215	*210	225	214	230
251	243	237	226	219	218	*216	*216	217	217	*216	217	231
240	238	231	221	218	*214	*214	216	217	219	217	217	225
256	249	238	231	225	217	218	217	217	215	*211	212	227
238	233	219	212	201	194	195	201	194	*192	*192	201	220
252	241	232	215	205	*204	212	207	206	205	206	206	221
238	235	226	216	213	214	214	216	220	220	219	219	222
255	253	248	236	234	226	226	226	225	222	224	226	232
244	239	227	218	212	*209	211	210	*209	*209	210	210	221
243	239	229	218	215	212	211	212	211	212	213	213	221
*263	254	246	235	228	230	227	229	219	221	222	224	228
242	236	226	220	217	214	214	211	211	211	*210	211	225
*247	242	231	221	214	209	210	216	215	218	218	218	222
242	234	226	219	218	217	215	215	*214	217	217	216	226
231	231	221	218	213	214	214	214	217	216	216	216	221
248	238	229	225	226	*216	*216	217	218	218	218	219	231
199	211	212	195	190	193	194	201					
215	201	193	192	176	187	187	185	185	185	189	187	
214	208	206	207	190	189	191	201	201	198	199	197	200
222	218	212	206	198	194	194	194	194	194	195	196	204
232	217	208	202	199	196	*194	195	195	195	195	197	207
216	*220	213	210	207	204	203	203	198	198	199	198	204
230	220	213	207	205	200	*197	200	199	201	204	203	211
233	224	216	209	208	201	200	199	199	*198	199	199	212
241	235	225	217	211	*209	*209	210	210	210	211	211	222

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

VERTICAL FORCE (0.1 . . . + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	*1047	*1047	1045	1045	1044	1045	1044	1042	1036	1033	*1023	1024
2	1044	1043	1042	1043	1042	1043	1041	1039	1034	1024	1021	*1020
3	1046	1046	1045	1044	1044	1043	1039	1038	1038	1036	1033	1033
4	*1048	1047	*1048	1046	1045	1045	1044	1038	1031	1027	*1024	1027
5	1044	1044	1042	1041	1043	1043	1043	1038	1031	1029	1024	*1022
6	1046	1046	1047	1046	1043	1045	1044	1035	1027	1020	*1015	1021
7	1042	1041	1041	1041	1041	1040	1040	1037	1029	1021	1019	*1016
8	1045	1044	1043	1043	1042	1044	1040	1027	1014	1011	*1009	1011
9	1036	1035	1034	1036	1034	1033	1030	1027	1024	1023	1019	*1016
10	1042	1042	1041	1041	1040	1041	1041	1038	1029	1025	*1010	1011
11	1035	1033	1034	1034	1034	1035	*1037	1032	1022	1018	1011	*1005
12	1030	1028	1028	1029	1028	1028	1025	1020	1004	1002	*0996	1002
13	1028	1027	1025	1027	1027	1031	*1033	1022	1012	1006	0996	*0992
14	1021	1021	1021	1021	1022	*1024	*1024	1018	1011	1009	*1005	1009
15	1019	1019	1019	1020	1021	*1022	1019	1015	1003	0996	*0995	0999
16	1020	1021	1020	1020	1021	*1025	*1025	1018	1013	1007	*1001	1002
17	*1025	*1025	1021	1023	1024	*1025	1019	1009	1007	1005	0999	*0998
18	1025	1026	1026	1025	1024	1023	1017	1013	1009	1005	1002	*1000
19	1026	*1027	1026	1024	1023	1025	1020	1010	1000	0997	*0996	0998
20	1027	1027	*1028	1027	1027	*1028	1023	1015	1009	*1003	1007	1014
21	1023	1023	1023	1022	1022	*1024	1019	1007	0997	*0993	0999	1004
22	1023	1023	1023	1023	1025	1025	1023	1015	1011	1005	1003	*1001
23	*1027	*1027	1026	*1027	1026	*1027	1022	1014	1001	0998	*0996	0997
24	1025	1025	1025	1024	1024	1026	1025	1016	1005	*0999	1000	1004
25								1012	1009	1001	*0997	0998
26	1025	1025	1024	1024	1024	1024	1021	1023	1016	1014	1014	1014
27	1022	1021	1021	1021	1024	1023	1021	1015	1011	1008	*1005	1007
28	1027	1027	1028	1028	1028	1028	1027	1022	1016	1015	1014	*1013
29	1030	1029	1029	1027	1027	1029	1024	1017	1016	1015	*1014	1017
30	*1034	*1034	1033	1032	1032	1032	1027	1026	1020	1013	1013	*1012
31	1028	1028	1027	1026	1026	1027	1026	1021	*1015	1017	1016	1017
Mean	*1032	*1032	1031	1031	1031	*1032	1029	1023	1016	1012	*1009	1010

EXTREME VALUES.

Easterly declination.						Horizontal force.				
Day.	Maxima.	Hour.	Minima.	Hour.	Daily range.	Maxima.	Hour.	Minima.	Hour.	Daily range.
1	0 50.64	8 a.	0 47.23	3 a.	3.41	0.38256	11 a.	0.38210	5 a.	0.00046
2	51.36	8 a.	47.67	3 p.	3.69	261	11.12 a.	217	6 and 11 p.	44
3	49.96	10 a.	48.54	12 m. d.	1.42	255	11.12 a.	217	10 p.	38
4	50.83	8 a.	47.99	10.42 a.	2.84	269	10 a.	198	8.40 p.	71
5	50.57	8 a.	48.01	12.16 p.	2.56	248	10.44 a.	208	5 p.	40
6	51.44	8 a.	46.04	1 p.	5.40	266	10.42 a.	207	6 p.	59
7	51.60	8 a.	47.06	1 p.	4.54	272	10.28 a.	202	7 p.	70
8	51.48	7 a.	45.80	1 p.	5.68	268	12 m. d.	205	11.32 p.	63
9	50.65	8 a.	47.67	3 p.	2.98	263	11 a.	216	various	47
10	50.53	9 a.	45.98	12 m. d.	4.55	255	10.20 a.	214	6 and 7 p.	41
11	51.54	8 a.	47.56	2 p.	3.98	258	12 m. d.	211	11 p.	47
12	50.57	8 a.	47.02	1 p.	3.55	266	11 a.	192	10 and 11 p.	74
13	51.58	8 a.	46.33	1 p.	5.25	263	11 a.	201	0.01 a.	62
14	50.18	7 a.	46.20	1 p.	3.98	246	10 a.	208	1 a.	43
15	51.76	7 a.	46.94	0.34 p.	4.82	265	11 a.	213	5 a.	52
16	51.21	8 a.	47.66	11.40 a.	3.55	248	12 m. d.	208	9.16 p.	40
17	50.81	7 a.	47.40	12 m. d.	3.41	247	12 m. d.	209	5 a.	38
18	50.54	7 a.	47.85	1 p.	2.69	264	0.30 p.	213	0.01 a.	51
19	51.98	7 a.	46.02	1 p.	5.96	248	10 a.	210	12 m. n.	38
20	50.87	6.18 a.	45.90	11 a.	4.97	247	12 m. d. and 1 p.	208	2, 4 and 5 a.	39
21	52.59	7 a.	45.92	11 a.	6.67	253	11 a.	214	9 p.	39
22	51.62	7.20 a.	46.79	1.15 p.	4.83	244	10 a.	212	3 a.	32
23	52.49	7 a.	46.67	12 m. d.	5.82	270	10.14 a.	216	6 and 7 p.	54
24	52.08	7.11 a.	46.97	12 m. d.	5.11	249	9.12 a.			
25			47.56	12 m. d.		230	11.51 a.			
26	50.56	6.40 a.	47.86	1.44 p.	2.70	221	12 m. d.	184	0.09 a.	37
27	51.15	7 a.	47.03	12 m. d.	4.12	229	12 m. d.	192	6 a.	37
28	51.88	8 a.	48.61	2 and 3 p.	3.27	243	11 a.	194	7 p.	49
29	51.62	7 a.	47.22	11.36 a.	4.40	220	2 p.	195	4 a.	25
30	51.07	8 a.	46.88	1 p.	4.69	242	11 a.	197	7 p.	45
31	51.09	7 a.	46.69	0.34 p.	4.40	244	11.15 a.	198	10 p.	46
Mean	51'.21		47'.05		4'.17	252		206		47

MAGNETIC OBSERVATIONS FOR JULY, 1902.

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VERTICAL FORCE (0.1 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
1029	1034	1038	1044	1046	1046	*1047	*1047	1046	1045	1044	1044	1041
1022	1030	1034	1037	1042	1044	*1047	1046	1046	1045	1045	1045	1038
*1032	1035	1039	1046	1046	1049	1048	1048	1048	1049	1050	1050	1043
1032	1037	1038	1041	1044	1045	1047	1047	1046	1046	1045	1045	1041
1030	1037	1043	1046	1047	1047	1047	1047	*1048	*1048	*1048	*1048	1041
1028	1034	1043	1047	*1048	1045	1044	1044	1044	1044	1043	1043	1039
1021	1027	1035	1042	1044	1044	1045	1045	1046	1046	1046	1047	1037
1011	1020	1030	1032	1036	1034	1033	1033	1034	1035	1037	1037	1031
1017	1020	1028	1034	1041	1043	1043	1042	1043	1044	1044	*1045	1033
1015	1019	1023	1030	1032	1031	1034	1034	1034	1035	1035	1035	1032
1006	1008	1014	1019	1025	1026	1026	1026	1028	1028	1029	1030	1025
1007	1017	1022	1029	1030	1031	*1034	1030	1030	1031	1032	1031	1023
1001	1010	1016	1018	1018	1018	1021	1022	1022	1022	1024	1024	1018
1010	1015	1017	1018	1022	1019	1019	1018	1018	1018	1018	1018	1017
1010	1011	1013	1017	*1022	1019	1020	1020	1020	1020	1021	1021	1015
1007	1011	1014	1021	1023	*1025	1024	1024	1024	*1025	*1025	1024	1018
1000	1006	1011	1017	1021	1023	1023	1024	1024	1024	1024	*1025	1017
1001	1002	1012	1017	1024	1025	1026	1025	1026	*1027	1026	*1027	1017
1001	1007	1017	1025	*1027	1026	1026	1025	1026	1026	1026	*1027	1018
1023	1022	1023	*1028	1026	1024	1022	1023	1023	1025	1025	1024	1022
1009	1015	1022	1019	1016	1014	1017	1018	1018	1020	1022	1023	1015
1004	1008	1018	*1029	*1029	1027	1026	1027	1028	1028	1028	1028	1020
1004	1007	1009	1016	1017	1018	1023	1023	1023	1023	1024	1025	1017
1013	1015	1019	1018	1021	1021	1024	1023					
1004	1006	1012	1017	1017	1018	1021	1021	1023	1025	1025	1026	
*1012	1013	1021	1024	1024	1022	1023	1023	1023	1022	1023	1022	1022
1011	1016	1026	1028	*1030	1028	1027	1026	1026	1026	1026	1026	1021
1014	1015	1017	1025	1028	1027	1029	1031	1031	1031	1031	*1032	1024
1021	1023	1027	1029	1030	1031	1033	1033	1033	1033	*1034	*1034	1026
1016	1019	1022	1028	1027	1028	1027	1027	1028	1031	1031	1030	1024
1021	1022	1023	1028	1027	1028	1027	1027	1027	1027	*1029	*1029	1025
1014	1018	1023	1028	1030	1030	1031	1031	1031	*1032	*1032	*1032	1026

EXTREME VALUES.

Vertical force.					Northerly dip.					
Maxima.	Hour.	Minima.	Hour.	Daily range.	Daily mean.	Maxima.	Hour.	Minima.	Hour.	Daily range.
0.11047	7 and 8 p.	0.11022	11.24 a.	0.00025	16 06.63	16 07.49	1 a.	16 04.31	11.24 a.	3.18
1047	7 p.	1020	12.32 p.	27	6.29	7.33	7 p.	4.10	12 m. d.	3.23
1050	11 p. and 12 mn.	1032	1 p.	18	6.73	7.53	12 m. n.	5.19	11.12 a.	2.34
1048	1 and 3 a.	1023	10.30 a.	25	6.56	7.72	8.40 p.	4.16	10.30 a.	3.56
1048	9 p. to 12 m. n.	1022	12 m. d.	26	6.73	7.56	5 p.	4.60	12 m. d.	2.96
1048	5 p.	1015	11 a.	33	6.47	7.65	5 p.	3.52	10.42 a.	4.13
1047	12 m. n.	1016	12 m. d.	31	6.23	7.54	7 p.	3.53	12 m. d.	4.01
1045	1 a.	1009	11 a.	36	5.71	7.11	1 a.	3.00	11 a.	4.11
1045	12 m. n.	1016	12 m. d.	29	5.85	7.18	12 m. n.	3.79	12 m. d.	3.39
1042	1 and 2 a.	1009	11.24 a.	33	5.91	6.88	1 a.	3.64	12 m. d.	3.24
1037	7 a.	1005	12 m. d.	32	5.28	6.40	7 a.	2.88	12 m. d.	3.52
1034	7 p.	0996	11 a.	38	5.28	6.80	7 p.	1.94	11 a.	4.86
1033	6 a.	0992	12 m. d.	41	4.84	6.32	0.01 a.	1.71	12 m. d.	4.61
1024	6 and 7 p.	1005	11 a.	19	4.73	5.56	6 a.	3.22	11 a.	2.34
1023	5.44 a.	0995	11 a.	28	4.33	5.32	5.44 a.	1.88	11 a.	3.44
1025	various.	1000	0.07 p.	25	4.84	5.71	6 and 10 p.	2.87	12 m. d.	2.84
1026	1.30 a.	0998	12 m. d.	28	4.76	5.75	1.30 a.	2.56	12 m. d.	3.19
1027	10 p. and 12 mn.	1000	12 m. d.	27	4.59	5.68	2 a.	2.32	0.30 p.	3.36
1028	4.50 p.	0996	11 a.	32	4.75	5.85	12 m. n.	2.40	11 a.	3.45
1029	4.30 p.	1003	10 a.	26	5.15	5.96	3 a.	3.17	10 a.	2.79
1024	6 a.	0993	10 a.	31	4.48	5.38	12 m. n.	2.10	10 a.	3.28
1029	4 and 5 p.	0999	11.28 a.	30	5.01	5.95	5 p.	2.86	11.28 a.	3.09
1027	various.	0996	11 a.	31	4.52	5.66	1 a.	1.90	11 a.	3.76
1025	1 and 2 a.	0996	10.32 a.					2.79	10.32 a.	
1030	5 p.	1012	11.51 a.					2.80	11.51 a.	
1032	12 m. n.	1005	1 p.	13	5.68	6.27	1 a.	4.51	12 m. d.	1.76
1034	11 p. and 12 mn.	1013	11 a.	25	5.50	6.39	5 p.	3.62	11 a.	2.77
1034	1 and 2 a.	1014	12 m. d.	19	5.68	6.58	12 m. n.	3.97	11 a.	2.61
1034	11 and 12 m. n.	1011	11 a.	20	5.92	6.73	12 m. n.	4.73	11 a.	2.00
1029	11 and 12 m. n.	1015	11.45 a.	23	5.58	6.73	1 a.	3.79	11.45 a.	2.94
			9 a.	14	5.64	6.28	11 p. and 12 mn.	4.13	11.15 a.	2.15
1035		1007		27	5'.51	6'.53		3'.29		3'.20

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

EASTERLY DECLINATION ($0^{\circ} 40' +$ the numbers in the table).

Day.	1a.	2a.	3a.	4a.	5a.	6a.	7a.	8a.	9a.	10a.	11a.	Noon.
1	9'. 12	9'. 12	9'. 12	9'. 26	9'. 40	*9'. 97	9'. 83	9'. 26	7'. 70	*7'. 27	7'. 42	7'. 56
2	9. 28	9. 28	9. 28	9. 42	9. 57	10. 42	*10. 56	9. 85	9. 28	8. 29	*6. 87	7. 01
3	9. 30	9. 30	9. 44	9. 44	9. 59	10. 72	*11. 57	11. 43	9. 44	7. 88	*6. 46	*6. 46
4	9. 32	9. 61	9. 61	9. 61	9. 61	10. 60	*11. 45	11. 03	10. 60	9. 32	8. 47	*7. 33
5	9. 20	9. 34	9. 77	9. 91	10. 19	11. 76	*12. 04	11. 33	9. 34	8. 21	7. 78	*7. 50
6	9. 93	9. 79	9. 93	10. 21	10. 50	11. 78	*12. 34	11. 78	9. 51	7. 39	6. 63	6. 52
7	9. 45	9. 59	9. 59	9. 59	9. 73	11. 01	12. 15	*12. 29	11. 15	10. 59	9. 02	8. 21
8	9. 47	9. 47	9. 61	9. 61	9. 75	10. 75	11. 32	*11. 74	9. 47	8. 33	7. 91	*7. 77
9	9. 48	9. 48	9. 48	9. 48	9. 62	10. 90	*11. 18	10. 47	9. 05	7. 64	*6. 50	6. 78
10	9. 21	9. 35	9. 63	9. 77	10. 06	10. 91	*11. 34	11. 19	10. 06	9. 21	8. 07	*7. 79
11	9. 50	9. 64	9. 64	9. 64	9. 78	10. 07	*10. 35	8. 93	7. 94	*7. 37	7. 51	8. 08
12	9. 51	9. 51	9. 51	9. 51	9. 65	10. 79	*12. 35	*12. 49	10. 93	9. 51	7. 95	*7. 24
13	9. 38	9. 52	9. 52	9. 52	9. 66	10. 66	*10. 94	*10. 94	10. 09	9. 09	8. 38	*7. 82
14	9. 39	9. 39	9. 53	9. 53	9. 67	10. 81	*11. 94	11. 09	9. 53	8. 11	7. 26	*6. 69
15	9. 54	9. 54	9. 54	9. 54	9. 68	11. 10	*12. 24	*12. 24	11. 24	9. 63	7. 98	6. 84
16	9. 41	9. 55	9. 55	9. 55	9. 69	10. 97	12. 53	*12. 67	9. 83	6. 99	5. 29	*4. 72
17	9. 42	9. 42	9. 56	9. 56	9. 70	11. 26	*12. 97	12. 68	9. 70	7. 71	*6. 58	6. 72
18	9. 57	9. 71	9. 71	9. 71	9. 85	10. 99	12. 41	*12. 55	10. 99	8. 01	6. 59	*5. 88
19	9. 30	9. 44	9. 44	9. 58	9. 86	11. 57	*12. 56	11. 14	8. 59	6. 88	6. 60	*5. 89
20	9. 59	9. 59	9. 59	9. 73	9. 87	12. 15	13. 71	*13. 99	12. 15	8. 45	6. 75	6. 32
21	9. 74	9. 74	9. 74	9. 74	9. 88	11. 16	*12. 30	11. 16	9. 60	8. 18	7. 04	6. 62
22	9. 61	9. 75	10. 18	9. 61	10. 32	10. 89	*11. 60	11. 03	9. 04	7. 62	6. 77	6. 63
23	9. 48	9. 62	9. 62	9. 76	9. 90	11. 04	12. 46	*12. 60	11. 04	8. 77	6. 78	6. 64
24	9. 49	9. 49	9. 63	9. 63	9. 63	10. 48	11. 05	*11. 33	10. 48	9. 35	8. 21	7. 07
25	9. 50	9. 50	9. 50	9. 64	9. 64	10. 49	11. 91	*12. 34	10. 78	7. 94	5. 95	*5. 24
26	9. 51	9. 65	9. 65	9. 65	9. 79	10. 93	11. 92	*12. 06	11. 07	9. 72	8. 37	7. 38
27	9. 66	9. 66	9. 66	9. 66	9. 66	10. 51	11. 65	*12. 07	11. 36	9. 80	8. 24	6. 96
28	9. 67	9. 67	9. 67	9. 67	9. 81	10. 66	*11. 09	10. 38	9. 67	8. 39	7. 40	*6. 55
29	9. 53	9. 53	9. 53	9. 67	9. 81	10. 38	*10. 95	*10. 95	10. 24	9. 39	7. 68	*6. 83
30	9. 54	9. 68	9. 68	9. 68	9. 82	*10. 82	10. 53	9. 54	8. 26	6. 56	5. 42	*5. 28
31	9. 40	9. 54	9. 54	9. 68	9. 68	10. 82	*11. 38	11. 24	9. 25	8. 26	7. 12	5. 99
Mean	9'. 47	9'. 53	9'. 60	9'. 63	9'. 79	10'. 88	*11'. 70	11'. 41	9'. 92	8'. 38	7'. 26	*6'. 78

HORIZONTAL FORCE ($0.38 \dots +$ the numbers in the table).

Day.	1a.	2a.	3a.	4a.	5a.	6a.	7a.	8a.	9a.	10a.	11a.	Noon.
1	*199	202	206	205	206	206	208	212	213	222	226	*232
2	209	206	206	206	207	213	218	219	228	230	232	236
3	205	206	205	203	*199	202	211	220	227	*237	*237	235
4	204	207	208	206	207	210	206	211	225	*226	225	222
5	199	198	198	198	197	*196	207	223	234	246	248	*249
6	204	204	205	205	*203	205	210	219	228	233	*237	236
7	210	211	209	208	207	209	209	210	219	223	226	226
8	202	202	205	204	204	209	212	221	230	*238	236	236
9	201	204	204	204	205	209	218	224	234	246	246	247
10												
11								217	229	230	*232	231
12	*194	197	199	196	196	198	197	201	204	206	214	*217
13	199	199	199	198	198	200	201	204	208	216	217	*218
14	*197	198	199	200	200	203	213	219	225	234	*236	232
15	*201	202	203	203	204	206	216	223	241	249	*250	245
16	202	203	205	204	203	202	202	208	225	*230	227	227
17	203	204	203	202	203	207	218	228	243	*251	246	242
18	201	201	201	202	201	200	209	222	243	*250	245	231
19	199	198	197	197	199	201	208	219	226	*227	226	222
20	*194	195	195	199	200	199	200	205	217	*228	227	222
21	205	203	202	201	200	210	213	223	232	233	234	227
22	195	187	201	193	190	*205	172	165	167	178	186	197
23	*173	175	174	175	176	181	185	194	213	*215	209	206
24	180	*179	182	185	184	188	192	195	203	216	*219	211
25	183	*182	184	183	187	191	198	204	217	227	231	*232
26	197	198	200	205	203	203	211	225	*237	233	233	233
27	187	187	188	187	188	189	192	196	210	217	*219	216
28	191	*189	194	194	192	192	192	198	205	210	215	*220
29	197	198	199	198	196	193	195	196	210	220	223	*225
30	192	192	*190	*190	*190	191	199	205	216	222	*228	227
31	194	197	198	198	199	202	211	227	238	244	*246	241
Mean	*197	*197	199	198	198	201	204	211	221	228	*229	228

MAGNETIC OBSERVATIONS FOR AUGUST, 1902.

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EASTERLY DECLINATION ($0^{\circ} 40'$ + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
8'.27	7'.84	7'.98	8'.84	9'.12	9'.26	9'.12	9'.12	9'.12	9'.12	9'.12	9'.12	8'.79
7.72	7.86	8.86	9.14	9.28	9.28	9.14	9.14	9.14	9.14	9.14	9.28	9.01
7.17	8.31	9.16	9.30	9.73	9.30	9.16	9.16	9.16	9.16	9.16	9.30	9.13
*7.33	7.62	7.90	9.18	9.75	9.75	9.18	9.18	9.18	9.18	9.18	9.18	9.30
7.64	8.35	9.20	10.48	11.05	10.62	9.77	9.77	9.77	9.63	9.63	9.77	9.66
*6.41	6.98	7.84	8.61	9.57	9.43	9.43	9.43	9.43	9.43	9.43	9.43	9.24
8.17	8.17	*8.03	9.02	9.45	9.45	9.31	9.31	9.31	9.31	9.31	9.31	9.61
8.05	8.33	9.19	9.47	9.47	9.47	9.61	9.61	9.61	9.47	9.47	9.47	9.43
7.07	7.49	8.63	9.34	9.48	9.48	9.20	9.05	8.91	8.91	8.77	9.05	8.98
7.93	8.21	8.92	9.49	9.63	9.63	9.49	9.35	9.35	9.35	9.49	9.49	9.46
8.22	8.22	8.36	9.50	9.78	9.64	9.50	9.50	9.50	9.36	9.36	9.50	9.12
7.81	8.09	8.94	9.51	9.65	9.65	9.51	9.51	9.51	9.51	9.37	9.37	9.56
7.96	8.24	9.24	9.66	9.80	9.66	9.52	9.38	9.38	9.24	9.24	9.38	9.43
6.83	7.83	8.25	9.39	10.24	9.81	9.53	9.53	9.53	9.53	9.53	9.53	9.27
*6.70	7.27	8.26	9.26	9.68	9.54	9.54	9.40	9.40	9.40	9.40	9.40	9.43
5.01	6.14	7.56	8.98	9.41	9.41	9.27	9.27	9.27	9.41	9.41	9.41	8.89
6.86	7.29	8.14	9.28	9.56	9.42	9.42	9.56	9.56	9.56	9.56	9.56	9.29
6.45	7.01	8.29	9.57	9.71	9.57	9.57	9.43	9.43	9.29	9.29	9.29	9.29
6.46	6.74	8.02	9.44	9.72	9.72	9.58	9.44	9.44	9.44	9.44	9.58	9.08
*5.90	6.47	8.03	9.31	9.73	9.59	9.45	9.59	9.59	9.45	9.45	9.59	9.50
*6.48	6.90	8.04	8.75	9.60	9.60	9.32	9.17	9.32	9.60	9.60	9.60	9.20
*6.34	6.63	7.34	8.19	9.18	9.61	9.33	9.33	9.33	9.33	9.33	9.61	9.03
*6.35	6.64	8.06	9.34	9.76	9.62	9.48	9.48	9.48	9.48	9.48	9.48	9.35
*6.36	6.65	7.93	9.49	9.77	9.49	9.35	9.49	9.49	9.49	9.49	9.49	9.26
*5.24	5.81	7.51	9.50	9.64	9.64	9.64	9.50	9.50	9.50	9.50	9.64	9.05
*6.95	7.09	7.66	8.37	9.37	9.37	9.22	9.22	9.37	9.51	9.51	9.65	9.37
*6.54	6.68	7.67	9.09	9.80	9.80	9.52	9.38	9.38	9.38	9.38	9.52	9.38
6.69	7.40	8.39	9.10	9.53	9.67	9.67	9.53	9.53	9.53	9.53	9.53	9.20
7.11	8.11	8.82	9.53	9.81	9.81	9.67	9.67	9.67	9.53	9.53	9.53	9.39
6.27	7.12	7.83	8.83	9.54	9.54	9.40	9.25	9.25	9.25	9.25	9.25	8.74
*5.70	6.98	8.54	9.82	10.25	10.11	9.68	9.54	9.54	9.40	9.25	9.40	9.17
6'.90	7'.37	8'.28	9'.25	9'.68	9'.61	9'.44	9'.40	9'.40	9'.38	9'.37	9'.44	9'.25

HORIZONTAL FORCE (0.38 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
231	230	226	218	211	205	207	208	209	207	208	209	213
*237	236	235	224	221	208	208	207	202	*201	*201	203	212
232	228	220	215	211	211	208	207	208	207	207	206	215
220	215	211	201	*195	196	197	197	197	197	199	199	208
241	224	212	205	204	202	199	199	201	203	204	204	212
233	228	223	218	216	209	209	206	206	208	209	209	215
*227	221	217	214	214	213	207	206	204	*200	201	201	212
235	229	220	212	208	207	202	199	198	*197	198	199	212
218	202	211	197	190	190	192	192	189	187	184	186	203
215	215	211	208	204	201	200	200	201	199	200	200	203
216	210	208	202	198	199	198	198	198	198	198	*196	203
221	215	209	203	203	205	203	203	202	203	202	202	209
237	225	213	208	204	205	204	204	203	203	202	203	215
224	219	218	228	225	217	215	213	219	220	*199	203	214
236	229	220	211	207	203	206	206	209	204	*200	201	216
217	206	199	195	190	*188	189	*188	189	193	194	199	207
219	212	212	211	208	202	201	201	198	203	197	*196	207
214	213	213	214	207	204	204	204	205	203	207	208	207
*236	229	233	225	212	209	202	209	*198	199	201	*198	214
187	183	181	178	*159	171	173	171	169	174	177	177	181
202	200	194	187	187	182	177	177	176	181	180	180	187
210	202	193	193	188	189	187	188	190	190	188	185	193
226	219	215	209	198	199	192	195	197	194	195	195	202
227	224	218	210	204	200	195	195	194	190	190	*187	208
212	208	206	201	195	187	*183	188	190	190	189	190	196
219	216	210	207	201	198	197	197	197	196	197	198	201
*225	222	215	209	202	196	*192	193	193	194	194	*192	205
222	217	212	202	200	196	194	194	193	191	192	193	202
237	234	225	213	198	*184	186	185	190	189	188	188	209
223	218	213	208	202	199	*197	*197	*197	*197	*197	*197	206

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

VERTICAL FORCE (0.1 . . . + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	1030	1028	1028	1026	1027	*1031	1029	1025	*1018	1023	1024	1022
2	1031	1030	1031	1031	1031	1031	1028	1021	1019	*1012	*1012	1020
3	1033	1036	1035	1034	1033	1034	1033	1029	1024	1023	*1021	1024
4	1045	1046	1045	1043	1043	1045	1043	1039	1032	*1026	1027	1029
5	1047	1046	1046	1046	1046	1047	1043	1038	1036	1035	*1033	1036
6	1045	1045	1047	1047	1046	1047	1044	1035	1029	*1028	1031	1033
7	1052	*1053	1051	1050	1049	1048	1049	1044	1040	1034	*1028	*1028
8	1046	1045	1046	1045	1045	1048	1044	1040	*1032	1033	1034	*1036
9	1050	1050	1051	1052	1053	1051	1047	1041	1037	*1031	1032	1037
10	1059	1058	1058	1056	1056						1028	1031
11	1056	1056	1057					1052	1051	1052	1051	1049
12	1048	1047	1046	1045	1044	1046	1043	1041	1030	1024	1018	*1017
13	*1047	*1047	1045	1044	1042	1042	1038	1035	1035	1030	*1028	1029
14	1041	1041	1040	1041	1041	1043	1043	1035	1029	*1026	1030	1029
15	1051	1051	1051	1051	1051	*1052	1050	1043	1031	1022	*1014	1017
16	*1050	*1050	*1050	1049	1047	1043	1046	1037	1016	*1002	1007	1014
17	1045	1045	1044	1044	1044	*1049	1044	1028	1015	1016	*1014	1020
18	1044	1044	1042	1042	1042	1043	1043	1036	1017	*1008	*1008	1012
19	1039	1038	1039	1038	1039	1039	1037	1016	*1003	1005	1009	1015
20	1033	1034	1032	1033	1033	1035	1033	1027	1013	*1002	*1002	1007
21	1042	1041	1039	1038	1037	1037	1031	1024	1017	*1016	1017	*1016
22	1044	1042	1041	1041	*1045	1038	1037	1027	1020	1017	1015	1014
23	1041	*1042	1041	1041	1040	1041	1041	1032	1017	1010	*1009	1013
24	*1034	1032	1031	1032	1031	1031	1027	1017	1007	1004	0998	*0995
25	1030	1029	1027	1026	1027	1026	1028	1026	1010	*1003	*1003	1008
26	1033	1034	1034	1033	1030	1031	1031	1030	1022	1019	*1016	1020
27	*1036	1034	1034	1033	1034	1034	*1036	1031	1021	1010	1005	*1004
28	*1032	1031	1030	1031	1030	1031	1029	1026	1023	1019	1008	*1004
29	*1029	*1029	*1029	*1029	*1029	1028	1027	1026	1022	1019	1011	*1008
30	1025	1025	1024	1024	1024	1025	1020	1013	1013	*1009	*1009	1013
31	*1029	*1029	*1029	1026	1026	*1029	1024	1019	1015	1010	1009	*1008
Mean	*1041	1041	1040	1039	1039	1039	1037	1031	1023	1019	*1018	1020

EXTREME VALUES.

Easterly declination.						Horizontal force.				
Day.	Maxima.	Hour.	Minima.	Hour.	Daily range.	Maxima.	Hour.	Minima.	Hour.	Daily range.
1	0 50.26	6.20 a.	0 47.13	10.16 a.	3.13	0.38233	0.22 p.	0.38199	1 a.	0.00034
2	50.56	7 a.	46.59	11.33 a.	3.97	238	0.22 p.	198	10.42 p.	40
3	51.71	7.15 a.	46.32	11.24 a.	5.39	239	10.08 a.	199	5 a.	40
4	51.59	7.08 a.	47.19	0.22 p.	4.40	228	10.17 a.	195	5 p.	33
5	52.18	6.40 a.	47.50	12 m.d.and 1 p.	4.68	250	10.27 a.	196	6 a.	54
6	52.34	7 a.	46.41	1 p.	5.93	237	11 a.	203	5 a.	34
7	52.29	8 a.	48.03	3 p.	4.26	227	1 p.	200	10 p.	27
8	51.74	8 a.	47.77	12 m. d.	3.97	238	10 a.	197	10 p.	41
9	51.18	7 a.	46.50	11 a.	4.68					
10	51.34	7 a.	47.79	12 m. d.	3.55					
11	50.35	7 a.	47.23	10.18 a.	3.12	234	11.36 a.			
12	52.49	8 a.	47.24	12 m. d.	5.25	217	12 m. d.	187	0.01 a.	30
13	50.04	7 and 8 a.	47.82	12 m. d.	3.12	224	11.20 a.	196	12 m. n.	28
14	51.94	7 a.	46.40	0.30 p.	5.54	236	11 a.	197	1 a.	39
15	52.38	7.15 a.	46.70	1 p.	5.68	250	11 a.	201	1 a.	49
16	52.67	8 a.	44.72	12 m. d.	7.95	230	10 a.	199	11 p.	31
17	52.97	7 a.	46.30	11.21 a.	6.67	251	10 a.	200	11 p.	51
18	52.55	8 a.	45.88	12 m. d.	6.67	250	10 a.	188	6 and 8 p.	62
19	52.56	7 a.	45.89	12 m. d.	6.67	227	10 a.	196	12 m. n.	31
20	53.99	8 a.	45.90	1 p.	8.09	228	10 a.	194	1 a.	34
21	52.30	7 a.	46.48	1 p.	5.82	238	11.23 a.	196	11.16 p.	42
22	51.60	7 a.	46.20	1.30 p.	5.40	232	5.24 a.	155	5.27 p.	77
23	52.74	7.24 a.	46.35	1 p.	6.39	215	10 a.	173	1 a.	42
24	51.33	8 a.	46.22	0.48 p.	5.11	220	10.44 a.	179	2 a.	41
25	52.34	8 a.	45.24	12 m.d.and 1 p.	7.10	234	11.27 a.	182	2 a.	52
26	52.06	8 a.	46.95	1 p.	5.11	237	10 a.	187	12 m. n.	50
27	52.07	8 a.	46.54	1 p.	5.53	220	11.16 a.	183	7 p.	37
28	51.09	7 a.	46.41	0.09 p.	4.68	220	12 m. d.	189	2 a.	31
29	50.95	7 and 8 a.	46.55	0.31 p.	4.40	225	12m.d. and 1 p.	192	7 p. and 12 m.n.	33
30	50.82	6 a.	45.28	12 m. d.	5.54	228	11 a.	189	3.08 a.	39
31	51.38	7 a.	45.56	0.47 p.	5.82	247	10.54 a.	183	6.10 p.	64
Mean	51'.83		46'.55		5'.28	233		191		42

MAGNETIC OBSERVATIONS FOR AUGUST, 1902.

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VERTICAL FORCE (0.1 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
1022	1023	1023	1024	1025	1025	1026	1030	1030	1029	1029	1030	1026
1023	1025	1027	1029	1029	1029	1029	1031	1031	1033	*1034	1034	1027
1028	1035	1038	1041	1043	1044	1044	1045	*1047	1046	*1047	1046	1036
1034	1039	1044	1045	1045	1045	1044	1044	1045	1045	1045	*1047	1041
1039	1043	1045	*1051	1047	1046	1045	1045	1045	1046	1045	1046	1043
1037	1041	1046	1048	1049	1050	1050	1050	1050	1050	1050	*1051	1044
1032	1036	1041	1044	1045	1046	1046	1046	1046	1046	1046	1046	1044
1037	1039	1042	1043	1045	1047	1048	1049	1049	1050	*1051	1050	1043
1043	1046	1050	1053	1055	1053	1055	1057	1057	1057	*1058	*1058	1049
1037	1042	1047	1051	1054	1054	1058	1058	1057	1057	1056	1054	-----
*1042	1046	1044	1048	1049	1049	1049	1049	1049	1047	1047	1046	-----
1024	1030	1039	1044	1048	*1050	1049	1049	1049	1048	1049	1048	1041
1032	1037	1039	1040	1039	1040	1041	1042	1042	1043	1043	1041	1039
1031	1038	1043	1049	*1052	1050	1051	1051	1051	1051	1051	1051	1042
1023	1031	1042	1047	1050	1051	1051	*1052	*1052	*1052	1051	*1052	1043
1025	1035	1042	*1050	1046	1043	1046	1046	1046	1046	1044	1046	1039
1028	1037	1045	1046	1046	1043	1043	1044	1044	1045	1044	1045	1038
1021	1032	1044	*1047	*1047	1041	1043	1042	1042	1043	1042	1041	1036
1022	1026	1034	1039	*1041	1039	1038	1038	1035	1035	1034	1034	1031
1011	1021	1031	1037	1038	1040	1041	1043	1043	1043	*1044	1043	1030
1023	1030	1038	1041	1042	1042	1043	1042	1043	1043	*1044	1043	1035
*1013	1021	1030	1037	1039	*1045	1044	1044	*1045	*1045	*1045	*1045	1035
1019	1026	1033	1036	1037	1034	1035	1036	1035	1036	1035	1036	1032
0999	1007	1020	1028	1030	1028	1029	1029	1029	1030	1029	1030	1022
1012	1020	1027	*1034	*1034	*1034	*1034	*1034	*1034	*1034	*1034	*1034	1025
1019	1023	1029	1035	1038	1037	1038	*1039	*1039	1037	1037	1036	1031
1007	1012	1018	1026	1030	1034	1034	1034	1033	1033	1033	1032	1027
1007	1011	1018	1024	1024	1025	1027	1027	1027	1028	1028	1028	1024
1012	1017	1021	1025	1028	1027	1026	1026	1026	1027	1027	1025	1024
1019	1019	1019	1023	1025	1026	*1027	*1027	*1027	1026	*1027	*1027	1022
1014	1020	1023	1024	1024	1022	1023	1025	1025	1025	1024	1024	1022
1024	1029	1035	1039	1040	1040	*1041	*1041	*1041	*1041	*1041	*1041	1034

EXTREME VALUES.

Vertical force.					Northerly dip.					
Maxima.	Hour.	Minima.	Hour.	Daily range.	Daily mean.	Maxima.	Hour.	Minima.	Hour.	Daily range.
0.11031	6 a.	0.11018	9 a.	0.00013	16 05.70	16 06.37	1 a.	16 04.91	12 m. d.	1.46
1034	11 p. and 12 mn.	1009	10.26 a.	25	5.81	6.77	10.42 p.	4.08	11 a.	2.69
1047	9 and 11 p.	1021	11 a.	26	6.48	7.59	11 p.	4.71	11 a.	2.88
1047	12 m. n.	1024	10.24 a.	23	7.07	7.78	12 m. n.	5.20	10.24 a.	2.58
1051	4 p.	1032	10.50 a.	19	7.13	7.97	4 p.	5.33	10.50 a.	2.64
1051	12 m. n.	1028	10 a.	23	7.15	7.87	12 m. n.	5.39	10 a.	2.48
1053	2 a.	1027	11.30 a.	26	7.22	7.99	2 a.	5.47	11.30 a.	2.52
1051	11 p.	1032	9 a.	19	7.13	8.14	11 p.	5.68	10 a.	2.46
1058	11 p. and 12 mn.	1031	10 a.	27				5.32	10 a.	-----
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1050	6 p.	1042	1 p.		7.18	8.15	0.01 a.	6.91	1 p.	3.30
1047	1 and 2 a.	1017	12 m. d.	33	7.02	7.78	1 and 2 a.	4.85	12 m. d.	2.10
1052	5 p.	1028	11 a.	19	7.13	8.10	5 p.	5.68	11.20 a.	3.01
1053	9.02 p.	1025	10.12 a.	27	7.06	8.18	9.02 p.	5.09	10.12 a.	3.01
1051	4.02 p.	1014	11 a.	39	6.75	7.96	4.02 p.	3.82	11 a.	4.36
1049	6 a.	0998	10.24 a.	58	6.63	7.75	6 a.	2.99	10.24 a.	4.97
1047	4 and 5 p.	1014	11 a.	35	6.68	7.99	5 p.	3.91	11 a.	3.84
1041	5 p.	1007	10.12 a.	40	6.26	7.17	5 p.	3.32	10 a.	4.67
1044	11 p.	1002	9.18 a.	39	6.18	7.35	11 p.	3.42	9.18 a.	3.75
		1002	10 and 11 a.	42			10 p.	3.35	10 a.	4.00
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1044	11 p.	1016	10 a. and 12 m. d.	28	6.42	7.60	11 p.	4.22	11 a.	3.38
1052	5.06 a.	1013	1 p.	39	7.22	8.02	5.06 a.	4.85	1 p.	2.78
1042	2 a.	1009	11 a.	38	6.82	7.94	2 a.	5.24	11 a.	3.62
1035	1.09 a.	0995	12 m. d.	40	5.85	7.22	1.09 a.	4.32	12 m. d.	4.04
1036	11.25 p.	1003	10 and 11 a.	33	5.88	6.87	7 p.	3.18	10 and 11 a.	3.51
1039	8 and 9 p.	1016	11 a.	23	6.23	7.23	8 and 9 p.	3.36	11 a.	3.84
1037	1.12 a.	1003	0.15 p.	34	6.19	7.21	1.12 a.	4.39	0.15 p.	2.44
1032	1 a.	1003	0.18 p.	29	5.82	6.73	1 a.	3.77	0.18 p.	3.09
1029	various.	1008	12 m. d.	21	5.73	6.28	various.	3.64	12 m. d.	2.36
1027	various.	1008	10.45 a.	19	5.63	6.28	various.	3.85	10.45 a.	2.43
1030	5.45 a.	1008	12 m. d.	22	5.46	6.40	5.45 a.	3.47	10.45 a.	2.93
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1043		1015		29	6'.51	7'.45		4'.43		3'.15

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

EASTERLY DECLINATION (0° 40' + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	9'.55	9'.55	9'.69	9'.69	9'.97	11'.39	*11'.68	10'.26	8'.27	6'.85	5'.57	*5'.00
2-----	9.70	9.70	9.70	9.70	9.84	10.55	10.55	9.13	7.43	7.43	6.72	*5.30
3-----	9.14	9.57	9.71	9.71	9.99	11.56	*11.98	11.56	8.46	6.02	5.02	*4.88
4-----	9.27	9.27	9.42	9.56	9.84	11.40	*12.40	11.97	9.84	8.14	6.29	*4.87
5-----	9.27	9.42	9.56	9.70	9.84	11.12	*12.40	11.69	9.70	8.00	6.72	*6.01
6-----	9.26	9.41	9.55	9.55	9.69	9.97	*10.83	10.68	9.55	7.99	6.71	*6.28
7-----	9.26	9.55	9.69	9.69	9.69	10.54	*11.11	*11.11	9.97	9.12	8.27	7.34
8-----	9.40	9.54	9.54	9.54	9.68	9.82	*10.82	10.39	10.25	9.40	7.55	5.99
9-----	9.11	9.11	9.11	9.25	9.54	9.96	*11.10	*11.10	-10.39	8.83	7.55	6.56
10-----	9.24	9.39	9.39	9.53	9.67	9.81	*10.52	9.67	9.53	8.25	7.82	7.26
11-----	9.10	9.10	9.24	9.39	9.53	*9.67	9.53	8.53	7.68	6.12	*5.84	5.98
12-----	9.09	9.23	9.38	9.52	9.66	10.23	*10.65	9.94	8.95	8.38	7.53	*6.82
13-----	9.38	9.66	9.66	9.66	9.66	9.94	9.66	8.24	6.82	6.25	*5.40	5.68
14-----	9.08	9.22	9.37	9.37	9.65	10.08	*10.93	9.65	8.23	6.38	*4.96	5.81
15-----	9.22	9.37	9.51	9.51	9.65	10.50	11.35	11.21	9.08	7.33	*6.67	6.81
16-----	9.36	9.36	9.50	9.50	9.64	10.63	*11.06	10.63	9.64	7.65	5.81	*5.24
17-----	9.21	9.36	9.50	9.64	9.64	9.78	10.92	*11.06	10.21	8.22	6.80	*6.23
18-----	9.35	9.49	9.49	9.63	9.63	10.20	*11.34	11.06	9.77	8.21	7.78	*6.64
19-----	9.20	9.49	9.63	9.63	9.63	10.20	10.48	9.77	9.06	8.35	7.64	7.08
20-----	9.48	9.62	9.62	9.62	9.62	9.90	*10.47	9.62	8.06	6.64	5.50	*5.36
21-----	9.34	9.48	9.48	9.62	9.62	9.62	*10.19	*10.19	9.62	7.35	6.64	*5.93
22-----	9.04	9.18	9.33	9.47	9.47	9.61	10.18	*10.75	10.04	9.47	8.33	8.19
23-----	9.18	9.04	9.04	9.18	9.33	9.61	10.60	*10.75	8.76	7.91	6.77	6.63
24-----	9.03	9.17	9.32	9.46	9.60	9.88	*11.02	*11.02	9.74	8.18	7.33	7.05
25-----	9.03	9.03	9.17	9.17	9.17	9.32	*9.74	*9.74	9.46	7.90	6.61	*6.47
26-----	9.02	9.02	9.02	8.88	8.74	9.45	*9.73	*9.87	9.59	8.45	7.89	*7.61
27-----	9.02	9.02	9.02	9.02	9.31	9.59	10.73	*11.01	9.73	8.31	6.89	*6.46
28-----	8.88	9.02	8.88	8.74	9.02	9.59	10.73	*11.01	9.73	8.45	7.31	*7.03
29-----								9.58	7.73	*6.59	6.73	6.87
30-----	9.01	9.15	9.30	9.30	9.15	9.30	9.58	*9.72	9.30	8.73	*7.02	*7.02
Mean	8'.91	9'.02	9'.09	9'.14	9'.25	9'.77	*10'.41	10'.36	9'.15	7'.83	6'.79	*6'.35

HORIZONTAL FORCE (0.38 ... + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	191	192	191	196	198	202	210	217	223	*226	222	222
2-----	193	194	195	197	199	201	214	230	242	246	*250	236
3-----	181	181	186	189	192	191	199	209	226	236	*238	230
4-----	187	186	186	192	191	190	194	209	235	*236	231	222
5-----	*188	*188	191	192	193	195	200	217	234	*244	240	236
6-----	*191	*191	192	195	198	199	197	218	231	242	*246	*246
7-----	197	196	196	198	195	196	203	209	226	*243	239	233
8-----	*188	189	189	*188	189	194	194	203	216	226	*227	*227
9-----	*186	*186	*186	187	189	190	191	195	209	210	210	*214
10-----	200	198	200	198	198	200	206	211	230	242	246	*248
11-----	186	187	187	190	190	192	203	210	221	229	234	*236
12-----	184	184	*183	187	188	191	191	199	219	238	250	*255
13-----	178	*174	175	178	180	184	186	195	214	223	*224	219
14-----	*182	184	186	187	185	186	190	203	216	230	236	*237
15-----	184	185	184	186	188	191	201	210	225	*234	228	224
16-----	184	185	183	185	183	185	187	199	214	223	*234	*234
17-----	*180	181	182	184	186	187	190	206	205	219	*226	217
18-----	*184	190	190	193	194	196	198	206	217	229	*237	*237
19-----	187	193	191	187	197	187	184	196	209	223	*233	229
20-----	172	177	180	183	182	180	179	181	201	215	*227	213
21-----	174	173	178	174	172	175	179	194	207	*222	*222	218
22-----	*182	*182	*182	183	183	183	183	187	199	211	*218	215
23-----	180	181	188	189	187	185	180	184	197	200	208	*213
24-----	178	*176	*176	178	180	179	179	181	197	207	215	*219
25-----	182	183	182	183	184	184	180	181	192	210	*221	218
26-----	179	179	181	181	183	181	178	*177	186	197	201	204
27-----	177	177	178	*175	177	178	*175	180	191	202	*211	206
28-----	180	179	182	180	180	181	180	188	206	218	*224	216
29-----	176	175						194	204	216	*220	210
30-----	191	193	192	196	195	190	195	200	204	218	*232	*232
Mean	*184	*184	186	187	188	189	191	200	213	224	*228	226

MAGNETIC OBSERVATIONS FOR SEPTEMBER, 1902.

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EASTERLY DECLINATION (0° 40' + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
5'.57	6'.71	8'.41	9'.83	10'.26	9'.69	9'.41	9'.26	9'.41	9'.41	9'.41	9'.55	8'.94
5.72	6.86	8.85	10.69	*10.98	9.98	9.56	9.56	9.42	9.56	9.42	9.27	8.98
5.45	6.87	8.57	9.71	10.28	9.85	9.57	9.57	9.43	9.43	9.28	9.28	8.95
5.44	6.58	8.28	9.70	10.27	9.84	9.56	9.56	9.42	9.42	9.13	9.13	9.11
6.86	8.00	9.27	10.13	10.55	9.70	9.42	9.27	9.27	9.27	9.13	9.13	9.31
6.57	6.99	8.27	9.55	9.83	9.69	9.55	9.55	9.55	9.41	9.26	9.26	9.04
6.99	*6.85	8.27	9.55	9.83	9.69	9.55	9.41	9.41	9.26	9.26	9.26	9.30
*5.70	6.84	7.98	9.54	10.11	9.68	9.25	9.11	9.11	9.11	9.11	9.11	9.02
*6.27	6.98	8.26	9.54	9.82	9.25	8.97	8.97	8.97	9.11	9.11	9.25	9.00
7.82	8.25	9.53	9.81	9.81	9.67	9.39	9.24	8.96	8.96	8.96	9.10	9.15
6.26	6.83	8.11	9.53	*9.67	9.53	9.24	9.10	9.10	9.10	8.96	8.82	8.50
*6.82	7.67	8.67	9.80	10.09	9.52	9.09	8.95	8.95	8.95	8.95	9.09	9.00
6.82	8.52	9.80	*10.65	10.23	9.38	9.09	8.95	8.95	8.95	8.95	9.09	8.72
6.66	7.80	9.37	10.22	10.08	9.65	9.51	9.37	9.22	9.22	9.22	9.22	8.84
6.95	7.52	8.80	10.08	10.22	9.65	9.51	9.37	9.22	9.22	9.22	9.37	9.14
5.95	7.51	9.21	9.92	10.21	9.64	9.50	9.50	9.36	9.07	9.07	9.07	9.00
6.80	8.08	9.36	10.21	10.21	9.50	9.07	8.93	8.93	8.93	8.93	9.07	9.11
6.79	7.64	9.06	10.20	10.48	9.63	9.20	9.06	9.06	8.92	9.06	9.20	9.20
*6.93	7.64	9.06	10.48	*11.05	9.63	9.35	9.63	9.20	8.92	8.92	9.35	9.18
5.93	6.92	8.34	9.62	10.33	9.76	9.48	9.48	9.19	9.05	9.05	9.05	8.74
6.21	7.35	8.77	9.62	9.90	9.48	9.05	9.19	9.19	9.05	9.05	9.05	8.87
*7.05	7.48	8.76	9.61	9.75	9.47	9.18	9.18	9.04	9.04	9.04	9.18	9.16
*6.20	6.77	7.91	8.90	9.61	9.18	9.04	9.04	9.04	9.04	9.04	9.04	8.73
*6.61	7.33	8.47	9.46	9.60	9.17	9.03	9.03	9.03	8.89	8.89	9.03	8.97
6.75	7.46	8.17	9.03	8.75	8.75	8.75	8.75	8.75	8.61	8.61	8.75	8.58
7.89	8.74	9.59	9.59	9.45	8.74	8.88	9.02	8.88	9.02	9.02	9.02	8.96
6.60	7.61	8.17	9.45	9.59	9.31	9.16	9.02	8.88	8.88	8.74	8.74	8.84
7.61	8.03	9.02	9.59	9.59	9.31	8.88	8.74	8.45	8.45	8.45	8.45	8.87
7.86	8.44	9.58	9.72	9.30	8.73	8.73	8.73	8.73	8.73	8.87	8.87	8.85
7.16	7.73	8.44	9.44	9.58	9.01	9.01	9.01	8.87	9.01	9.15	9.44	8.85
6'.61	7'.47	8'.75	9'.77	9'.98	9'.47	9'.23	9'.19	9'.10	9'.07	9'.04	9'.11	8'.67

HORIZONTAL FORCE (0.38 ... + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
220	215	215	210	200	195	191	192	191	189	*188	191	203
227	223	207	191	192	194	190	188	183	180	181	*179	206
217	209	203	204	199	188	182	*179	183	183	185	188	198
217	196	181	*175	179	180	189	188	188	182	188	186	196
228	226	214	208	199	194	192	192	193	193	193	193	206
234	225	215	212	208	203	198	194	*191	194	197	193	209
229	221	212	203	194	191	189	187	188	*186	188	188	204
223	216	207	199	197	194	191	191	190	190	*188	*188	200
*214	212	210	207	201	200	196	197	196	197	200	200	199
241	226	219	212	201	190	186	*181	184	184	186	185	206
233	224	215	206	200	189	187	186	186	186	185	*183	202
247	236	224	214	206	197	195	195	194	193	187	184	206
215	208	193	186	184	182	181	182	182	183	182	180	191
228	219	206	199	196	192	189	188	188	188	186	186	199
220	210	202	197	194	188	187	185	*182	183	183	183	201
228	220	211	201	194	186	181	180	181	181	183	*179	197
206	202	197	194	193	191	190	192	191	190	190	186	195
231	220	212	208	205	203	197	186	189	188	189	188	204
227	216	201	186	*167	176	176	174	176	177	176	169	193
208	196	195	182	167	167	163	*160	168	173	176	175	184
211	200	190	186	179	176	173	172	175	*171	172	178	186
211	203	195	191	189	186	183	185	185	185	186	186	191
207	189	189	183	180	179	178	176	175	*174	176	180	187
207	196	184	178	180	182	179	180	182	180	180	181	186
215	208	196	188	194	192	188	185	182	181	*176	181	191
*205	200	193	189	189	183	182	183	184	183	182	181	186
201	196	192	185	189	187	187	184	179	182	181	179	186
212	203	197	191	191	184	181	180	181	174	*173	174	190
199	192	184	185	191	191	191	191	192	191	188	184	188
226	211	198	197	195	194	191	187	187	183	183	*182	199
220	211	202	196	192	188	186	185	185	*184	*184	*184	197

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

VERTICAL FORCE (0.1 . . . + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	1026	1026	1024	1024	1024	1025	1020	1012	1004	1003	*1000	1003
2	1028	1027	1028	1026	1027	1028	1025	1019	1011	1010	*1007	1009
3	1035	1034	1035	1034	1034	1034	1029	1020	1008	*1007	1009	1010
4	*1031	1030	1030	1030	1030	*1031	1025	1015	1007	1001	*0996	0999
5	1016	1017	1017	1016	1017	1019	1016	1010	0999	0995	*0993	0998
6	1020	1020	1021	1019	1020	1020	1019	1016	1010	1006	*1002	1003
7	1019	1019	1019	1019	1018	1019	1019	1015	1010	1006	1000	*0996
8	*1017	*1017	*1017	1016	1016	*1017	1016	1014	1011	1004	0995	*0992
9	1012	1012	1012	1012	1012	1012	1013	1011	1007	0997	*0994	*0994
10	1020	1019	1019	1019	1018	1017	1017	1012	1011	1007	*1004	1005
11	1019	1019	1019	1018	1019	1017	1016	1011	1009	*1006	*1006	1008
12	1025	1025	1024	1024	1023	1024	1021	1016	1013	*1006	*1006	1008
13	1024	1024	1023	1023	1022	1022	1016	1014	1011	1009	*1008	1011
14	1028	1028	1027	1027	1026	1027	1023	1020	1015	1015	*1013	1019
15	1037	1038	1036	1036	1037	1036	1035	1027	1018	*1013	1014	1019
16	1037	1037	1035	1035	1034	1036	1032	1028	1020	1014	*1012	1017
17	*1045	1043	1043	1042	1042	1041	1039	1034	1025	*1021	*1021	1022
18	*1044	*1044	1043	1043	1041	1042	1039	1033	1026	1020	*1018	1019
19	*1034	1033	1031	1029	1028	1028	1024	1019	1014	1011	*1007	1010
20	1025	1023	1023	1024	1021	1022	1020	1015	1012	1010	*1005	1009
21	*1024	*1024	*1024	*1024	*1024	*1024	1023	1018	1006	0999	*0997	*0997
22	1011	1012	1012	*1013	*1013	*1013	1009	1009	1005	0996	0990	*0988
23	0999	1000	1000	1001	0999	0999	0998	0995	0989	*0984	0986	0991
24	1015	1014	1014	1015	1013	1013	1013	1007	0999	*0992	0993	0996
25	1014	1015	1013	1013	1013	1013	1011	1005	1003	0996	*0992	0996
26	1028	1028	1026	1025	1025	1025	1021	1015	1011	1014	1014	1014
27	1024	1024	1023	1021	1020	1021	1018	1013	1007	1002	*1000	1003
28	1026	1026	1025	1024	1023	1023	1021	1012	1007	*1005	1007	1011
29	1027	1024	1022					1015	1010	*1009	*1009	1011
30	*1030	*1030	1028	1027	1026	1025	1022	1019	1015	*1014	1015	1016
Mean	1025	1024	1024	1023	1023	1023	1021	1016	1010	1006	*1004	1006

EXTREME VALUES.

Easterly declination.						Horizontal force.				
Day.	Maxima.	Hour.	Minima.	Hour.	Daily range.	Maxima.	Hour.	Minima.	Hour.	Daily range.
1	0° 51.96	6.28 a.	0° 44.86	0.31 p.	7.10	0.38228	10.06 a.	0.38188	11 p.	0.00040
2	50.98	5 p.	45.30	12 m.d.	5.68	250	11 a.	177	9.48 p.	73
3	51.98	7 a.	44.74	0.08 p.	7.24	238	11 a.	176	0.17 a.	62
4	52.40	7 a.	44.87	12 m.d.	7.58	241	9.20 a.	175	4 p.	66
5	52.40	7 a.	46.01	12 m.d.	6.39	244	10 a.	188	1 and 2 a.	56
6	51.01	7.33 a.	46.28	12 m.d.	4.73	246	11a.and12m.d.	189	9.18 p.	57
7	51.11	7 and 8 a.	46.85	2 p.	4.26	243	10 a.	186	10 p.	57
8	50.82	7 a.	45.56	0.39 p.	5.26	227	11a.and12m.d.	188	various.	39
9	51.10	7 and 8 a.	46.27	1 p.	4.83	214	12 m.d.and 1 p.	186	1 to 3 a.	28
10	50.52	7 a.	47.26	12 m.d.	3.26	248	12 m.d.	181	8 p.	67
11	49.67	6 a. and 5 p.	45.14	10.45 a.	4.53	238	0.06 p.	182	11.48 p.	56
12	50.65	7 a.	46.68	0.36 p.	3.97	257	0.24 p.	183	3 a.	74
13	50.65	4 p.	45.40	11 a.	5.25	228	10.51 a.	174	2 a.	54
14	50.93	7 a.	44.96	11 a.	5.97	239	11.31 a.	181	0.01 a.	58
15	51.35	7 a.	46.53	10.54 a.	4.82	237	10.24 a.	181	8.46 p.	56
16	51.06	7 a.	45.24	12 m.d.	5.82	234	11a.and12m.d.	179	12 m.n.	55
17	51.06	8 a.	46.23	12 m.d.	4.83	226	11 a.	180	1 a.	46
18	51.34	7 a.	46.64	12 m.d.	4.70	238	11.47 a.	184	1 a.	54
19	51.16	5.09 p.	46.93	1 p.	4.23	240	10.35 a.	167	5 p.	73
20	50.61	7.06 a.	45.22	1.34 p.	5.39	230	10.45 a.	157	7.42 p.	73
21	50.33	7.36 a.	45.93	12 m.d.	4.40	223	10.06 a.	171	10 p.	52
22	50.75	8 a.	47.05	1 p.	3.70	218	11 a.	181	1.26 a.	37
23	50.75	8 a.	46.06	0.36 p.	4.69	213	12 m.d.	174	10 p.	39
24	51.30	7.15 a.	46.61	1 p.	4.69	220	11.48 a.	175	2.54 a.	45
25	49.88	7.19 a.	46.47	12 m.d.	3.41	222	11.05 a.	176	11 p.	46
26	49.87	8 a.	47.33	11.30 a.	2.54	205	1 p.	177	8 a.	28
27	51.01	8 a.	46.46	12 m.d.	4.55	218	10.54 a.	175	4 and 7 a.	38
28	51.01	8 a.	46.89	11.54 a.	4.12	226	11.10 a.	173	11 p.	53
29			46.81	10.21 a.		223	10.45 a.			
30	49.72	8 a.	47.02	11a.and12m.d.	2.70	232	11a.and12m.d.	182	12 m.n.	50
Mean	50°.94		46°.10		4'.85	231		179		53

MAGNETIC OBSERVATIONS FOR SEPTEMBER, 1902.

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VERTICAL FORCE (0.1 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
1011	1021	1028	*1032	1030	1027	1027	1027	1027	1026	1026	1026	1021
1016	1027	1037	*1041	*1041	1037	1037	1037	1038	1036	1036	1035	1028
1019	1027	1036	1042	*1043	1039	1040	1039	1037	1036	1035	1033	1030
1006	1014	1020	1022	1022	1020	1020	1019	1019	1019	1020	1019	1019
1006	1014	1021	1025	*1026	1024	1024	1024	1024	1024	1022	1022	1015
1007	1014	1020	*1024	*1024	1023	1022	1022	1022	1022	1022	1020	1017
0999	1006	1015	1019	*1021	1019	1020	1020	1020	1019	1019	1019	1015
0998	1003	1009	1013	1015	1014	1014	1014	1015	1015	1013	1013	1011
0998	1005	1015	1021	*1023	1022	1022	1022	1022	1022	1022	1021	1010
1008	1013	1017	*1021	*1021	1020	1020	1020	1020	1020	*1021	*1021	1016
1013	1016	1020	1026	*1028	1025	1026	1026	1026	1026	1026	1025	1019
1009	1017	1023	*1028	*1028	1026	1025	1026	1027	1027	1025	1026	1021
1019	1025	1029	*1030	1028	1025	1026	1027	1027	1027	1027	1026	1022
1023	1028	1035	*1037	1036	1034	1036	1036	1036	1036	1035	1035	1028
1024	1030	1037	1042	*1044	1043	1043	1043	1043	1041	1039	1039	1034
1027	1033	1042	*1046	*1046	1045	*1046	1045	1045	1045	*1046	1044	1035
1026	1035	1041	1043	1041	1039	1040	1040	1040	1040	1041	1041	1036
1025	1032	1039	1041	1040	1037	1037	1038	1036	1035	1033	1032	1035
1015	1020	1026	1030	1030	1028	1026	1027	1027	1026	1025	1026	1024
1014	1023	1029	*1030	1029	1029	1028	1028	1028	1028	1028	1028	1023
1002	1007	1013	1015	1015	1013	1012	1012	1011	1010	1011	1012	1014
0989	0993	0998	1002	1003	1002	1001	1003	1003	1003	1003	1004	1002
0996	1004	1013	*1017	*1017	1016	1016	1016	1016	1016	1016	1016	1009
1000	1007	1017	*1020	*1020	1018	1019	1019	1019	1017	1017	1017	1011
1002	1009	1016	1022	1024	1026	1028	1029	1029	*1030	1028	1028	1015
1015	1018	1024	1027	1028	1030	1030	*1031	1030	1028	1028	1026	1023
1009	1017	1024	1028	1032	1032	*1033	*1033	1032	1031	1030	1028	1021
1018	1024	1030	*1032	1030	1029	1030	1030	1030	1031	1030	1030	1023
1018	1025	1029	*1030	1028	1028	1029	*1030	*1030	*1030	*1030	1027	1023
1021	1026	1027	1026	1023	1022	1024	1023	1024	1024	1027	1026	1023
1011	1018	1024	*1028	*1028	1026	1027	1027	1027	1026	1026	1026	1021

EXTREME VALUES.

Vertical force.					Northerly dip.					
Maxima.	Hour.	Minima.	Hour.	Daily range.	Daily mean.	Maxima.	Hour.	Minima.	Hour.	Daily range.
0.11032	4 p.	0.11000	11.03 a.	0.00032	16 05.52	16 06.30	1 p.	16 03.43	10.06 a.	2.87
1041	4 and 5 p.	1005	11.16 a.	36	6.04	7.47	4 p.	3.17	11.16 a.	4.30
1043	5 p.	1007	10 a.	36	6.39	7.61	7 p.	3.57	10 a.	4.04
1031	1 and 6 a.	0996	11 a.	35	5.53	6.74	1 a.	2.78	11 a.	3.96
1026	5 p.	0993	11 a.	33	4.96	6.03	5, 7 and 8 p.	2.31	11 a.	3.72
1024	4 and 5 p.	1002	11 a.	22	5.05	5.94	9.18 p.	2.94	11 a.	3.00
1021	5 p.	0996	12 m.d.	25	5.00	5.77	10 p.	2.73	12 m.d.	3.04
1017	various.	0992	12 m.d.	25	4.77	5.55	1 a.	2.54	12 m.d.	3.01
1023	5 p.	0994	11 a. and 12 m.d.	29	4.70	5.77	7 and 9 p.	3.02	12 m.d.	2.75
1021	various.	1004	11 a.	17	5.04	5.97	8 p.	3.08	11 a.	2.89
1028	5 p.	1005	11.22 a.	23	5.38	6.36	11.48 p.	3.50	11.22 a.	2.86
1029	4.09 p.	1006	10 and 11 a.	23	5.45	6.39	12 m.n.	3.15	0.24 p.	3.24
1030	4 p.	1008	11 a.	22	5.89	6.53	8, 9 and 11 p.	3.85	10.51 a.	2.68
1037	4 p.	1013	11 a.	24	6.20	7.10	11 p. and 12 m.n.	4.07	11 a.	3.03
1044	5 p.	1013	10 a.	31	6.65	7.88	8.46 p.	4.13	10.24 a.	3.75
1047	4.12 p.	1012	11 a.	35	6.83	8.13	7 p.	4.03	11 a.	4.10
1045	1 a.	1021	10 and 11 a.	24	6.96	8.07	1 a.	4.97	11 a.	3.10
1045	1.44 a.	1018	11 a.	27	6.66	7.89	1 a.	4.46	11 a.	3.43
1034	1 a.	1007	11 a.	27	6.01	7.14	5 p.	3.64	10.35 a.	3.50
1030	4 p.	1005	11 a.	25	6.15	7.21	7.42 p.	3.62	11 a.	3.59
1024	1 to 6 a.	0996	10.42 a.	28	5.35	6.52	5 a.	2.99	10.42 a.	3.53
1013	4 to 6 a.	0987	11.34 a.	26	4.23	5.34	4 to 6 a.	2.39	11.34 a.	2.95
1018	4.45 p.	0984	10 a.	34	4.91	5.82	4.45 p.	2.53	10 a.	3.29
1021	4.44 p.	0992	10 a.	29	5.10	6.05	4.44 p.	2.96	11.48 a.	3.09
1030	10 p.	0991	10.40 a.	39	5.32	6.80	10 p.	2.66	11.05 a.	4.14
1031	8 p.	1011	9 a.	20	6.10	6.87	8 p.	4.92	12 m.d.	1.95
1033	7 and 8 p.	1000	11 a.	33	5.93	7.01	9 p.	3.59	11 a.	3.42
1033	3.50 p.	1004	10.12 a.	29	6.00	6.99	11 p.	3.83	10 a.	3.16
1031	10.23 p.	1009	10 and 11 a.	22	-----	6.71	4 p.	4.05	10.45 a.	2.66
1030	1 and 2 a.	1014	10 a.	16	5.79	6.56	1 a.	4.33	11 a.	2.23
1030		1003		27	5'.66	6'.68		3'.44		3'.24

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

EASTERLY DECLINATION ($0^{\circ} 40' +$ the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	9'. 43	9'. 43	*9'. 57	*9'. 57	9'. 29	9'. 29	9'. 29	9'. 14	8'. 72	8'. 15	*7'. 58	7'. 87
2	9. 00	9. 14	9. 29	9. 29	9. 29	9. 43	9. 71	*10. 71	10. 28	9. 57	8. 29	7. 58
3	9. 01	9. 30	9. 44	9. 30	9. 15	8. 87	9. 44	10. 29	*10. 43	9. 72	9. 01	7. 88
4	9. 02	9. 16	9. 31	9. 45	9. 31	9. 02	9. 59	*9. 87	9. 59	8. 17	7. 74	7. 60
5	9. 16	9. 31	9. 31	9. 31	9. 31	9. 45	9. 59	*9. 73	9. 59	8. 31	7. 74	*7. 46
6	9. 03	9. 17	9. 17	9. 03	8. 89	8. 75	8. 89	*9. 32	*9. 32	9. 17	9. 03	8. 75
7	9. 04	9. 04	9. 04	9. 04	9. 04	9. 18	*9. 75	9. 61	9. 47	9. 61	9. 61	9. 18
8	9. 04	9. 04	9. 04	9. 04	8. 90	8. 47	8. 76	9. 33	8. 90	*8. 33	8. 47	8. 76
9	9. 19	9. 19	9. 05	8. 91	8. 77	8. 48	9. 19	*9. 48	*9. 48	*9. 48	8. 91	8. 06
10	9. 20	9. 06	9. 06	9. 20	9. 06	9. 06	9. 77	*10. 20	9. 91	8. 78	*8. 35	*8. 35
11	8. 92	8. 92	9. 06	8. 92	*8. 78	9. 06	9. 49	*9. 63	*9. 63	*9. 63	9. 49	9. 06
12	9. 64	9. 36	9. 21	8. 93	*8. 50	9. 07	9. 50	9. 64	*9. 78	*9. 78	9. 64	9. 07
13	9. 22	9. 22	9. 22	9. 08	8. 94	9. 37	9. 65	*9. 79	9. 65	9. 08	8. 51	8. 08
14	9. 22	9. 22	9. 08	8. 94	9. 08	9. 51	10. 64	*11. 07	9. 79	9. 22	7. 80	*7. 38
15	9. 23	9. 23	9. 23	9. 09	9. 09	9. 52	10. 51	*11. 08	10. 94	9. 80	9. 09	*8. 38
16	9. 38	9. 38	9. 38	9. 23	9. 09	9. 23	9. 66	*9. 94	9. 66	9. 38	9. 09	*8. 24
17	9. 24	9. 39	9. 53	9. 53	9. 53	9. 53	9. 39	9. 39	8. 68	8. 25	*8. 11	*8. 11
18	9. 25	9. 25	9. 40	9. 54	9. 54	9. 68	9. 68	*9. 82	9. 40	*8. 40	*8. 40	8. 97
19	9. 41	9. 26	9. 26	9. 41	9. 41	9. 41	9. 83	*10. 83	10. 26	9. 69	8. 55	*8. 27
20	9. 12	9. 26	9. 41	9. 55	9. 69	9. 69	*10. 54	10. 40	9. 69	8. 55	*7. 42	7. 70
21	9. 27	9. 27	9. 42	9. 42	9. 56	9. 56	9. 70	*9. 98	9. 84	8. 56	7. 71	*7. 29
22	9. 14	9. 14	9. 14	9. 14	9. 14	9. 00	9. 14	9. 42	*9. 71	*9. 71	9. 28	8. 57
23	9. 14	9. 14	9. 14	9. 00	8. 86	8. 86	9. 28	*9. 71	*9. 71	8. 86	7. 72	*7. 58
24	9. 29	9. 15	9. 15	9. 01	*8. 87	*8. 87	9. 15	9. 86	*10. 57	10. 00	9. 43	*8. 87
25	9. 73	9. 73	9. 59	9. 59	9. 44	9. 73	9. 87	*10. 44	10. 16	9. 16	8. 31	*7. 88
26	9. 02	9. 16	9. 16	9. 02	9. 02	9. 16	9. 44	9. 73	*10. 30	10. 01	8. 88	8. 74
27	9. 31	9. 31	9. 17	9. 17	9. 03	8. 89	9. 45	*9. 74	9. 60	8. 46	8. 18	*7. 89
28	9. 61	9. 46	9. 32	9. 32	9. 18	9. 18	9. 46	*9. 75	9. 61	9. 32	9. 32	9. 18
29	9. 18	9. 04	8. 90	8. 90	8. 76	*8. 33	9. 18	9. 75	*10. 03	*10. 03	9. 75	9. 75
30	8. 91	8. 91	8. 91	8. 91	8. 77	8. 48	*8. 20	8. 62	9. 19	9. 05	8. 91	9. 19
31	9. 20	9. 20	9. 34	9. 20	9. 06	8. 92	8. 63	8. 63	8. 92	8. 78	*8. 49	*8. 49
Mean	9'. 21	9'. 22	9'. 24	9'. 19	9'. 11	9'. 13	9'. 50	*9'. 83	9'. 70	9'. 13	8'. 61	*8'. 33

HORIZONTAL FORCE (0.38 ... + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	182	181	179	177	182	179	180	181	192	207	213	*218
2	173	*172	173	174	173	173	176	185	204	215	224	*228
3	179	184	190	187	186	185	182	190	212	225	234	*235
4	*176	177	*176	177	178	179	181	186	211	232	*245	244
5	181	183	184	185	183	184	183	190	207	225	229	*235
6	180	178	*177	179	179	182	185	193	208	223	*235	234
7	*182	183	185	186	186	187	190	203	216	233	*240	239
8	192	192	191	191	191	193	202	210	227	237	*244	243
9	190	190	190	194	191	192	191	198	216	230	*239	237
10	190	191	192	194	195	194	195	205	220	236	*244	241
11	189	191	191	192	193	194	196	199	212	228	*239	229
12	200	210	177	173	187	175	*168	180	192	212	217	*219
13	180	*179	183	187	186	185	184	195	215	230	*236	233
14	190	192	193	193	190	188	*186	194	211	222	231	*232
15	191	191	192	192	194	195	197	205	217	234	*243	240
16	190	188	189	189	188	188	188	196	213	226	*238	235
17	*185	186	189	188	190	191	193	204	216	232	*240	239
18	*198	199	201	206	204	208	213	220	237	245	254	*262
19	200	200	201	200	201	202	205	208	222	236	*237	235
20	199	198	198	*196	198	198	213	230	244	255	*257	251
21	207	209	211	211	210	209	209	218	230	243	*251	247
22	207	210	210	210	206	205	208	214	228	241	*248	240
23	202	205	207	204	203	203	208	218	235	247	*255	253
24	*199	201	202	210	212	215	220	231	247	250	*254	*254
25	208	196	197	190	208	204	192	204	217	*227	224	223
26	*184	189	191	192	191	192	195	207	225	235	*242	236
27	194	198	199	201	204	203	207	225	241	240	*247	238
28	194	*190	191	191	195	195	198	210	230	240	*241	237
29	201	201	206	204	200	*199	207	215	225	228	*238	235
30	213	215	219	216	216	221	232	242	*267	253	264	262
31	198	203	202	204	205	204	200	208	216	226	*237	*237
Mean	192	193	193	193	194	194	196	205	221	233	*240	238

MAGNETIC OBSERVATIONS FOR OCTOBER, 1902.

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EASTERLY DECLINATION ($0^{\circ} 40'$ + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
8'.01	8'.58	9'.43	*9'.57	9'.43	9'.14	9'.00	9'.14	8'.86	8'.58	8'.72	9'.00	8'.95
*6.87	7.44	8.43	9.57	9.14	8.58	8.72	8.72	8.86	8.86	8.86	8.86	8.94
*7.59	8.02	8.73	9.58	9.58	9.12	9.01	8.87	8.73	8.73	8.87	9.01	9.07
*7.03	8.03	8.88	9.59	9.59	9.16	8.88	8.88	8.74	8.74	8.88	9.02	8.89
7.74	8.31	9.31	9.59	9.45	9.02	9.02	9.02	8.88	8.88	9.02	9.02	8.98
*8.46	8.61	9.03	9.17	9.03	9.03	9.03	9.03	8.89	8.75	8.89	9.03	8.98
*8.62	8.76	9.33	9.61	9.47	9.18	9.04	9.04	9.04	8.90	8.90	9.04	9.19
8.76	8.76	9.04	9.33	*9.47	*9.47	9.33	9.33	9.18	9.18	9.18	9.18	9.01
7.92	8.48	9.05	*9.48	9.19	9.19	9.34	9.19	9.19	9.05	9.19	9.19	9.03
9.06	9.35	9.63	9.91	9.77	9.49	9.35	9.20	9.20	9.06	8.92	8.92	9.25
9.06	9.20	9.49	*9.63	*9.63	9.49	9.35	9.20	9.35	9.20	9.20	9.49	9.29
8.93	9.36	9.64	9.64	9.50	9.21	9.36	9.21	9.21	9.07	9.07	9.07	9.31
*7.65	7.94	8.51	9.37	9.65	9.51	9.37	9.22	9.08	9.08	9.22	9.08	9.06
7.94	8.51	8.66	8.51	8.80	9.08	9.22	9.37	9.22	9.08	9.08	9.22	9.07
*8.38	8.52	9.09	9.66	9.52	9.38	9.23	9.23	9.09	8.95	9.09	9.28	9.36
*8.24	8.52	8.95	9.52	9.23	9.23	9.23	9.23	9.09	9.09	9.09	9.09	9.17
8.25	8.25	8.96	*9.67	9.39	9.10	9.10	9.24	9.10	9.10	9.10	9.24	8.88
8.83	8.97	9.40	*9.82	*9.82	9.68	9.54	9.40	9.25	9.25	9.11	9.25	9.32
8.70	9.41	9.69	9.97	9.69	9.41	9.26	9.12	9.12	8.98	8.98	9.12	9.25
8.27	9.12	9.69	9.69	9.69	9.55	9.55	9.26	9.12	9.12	9.12	9.26	9.27
7.85	8.42	8.99	9.56	9.56	9.56	9.42	9.42	9.27	9.13	9.13	9.13	9.13
8.29	*8.15	8.29	8.72	9.14	9.28	9.42	9.57	9.42	9.28	9.28	9.28	9.11
8.01	8.43	8.86	9.28	9.57	9.42	9.42	9.28	9.28	9.28	9.28	9.28	9.02
*8.87	9.15	9.43	9.58	9.43	9.43	9.58	9.58	9.58	9.72	9.72	9.58	9.41
8.31	8.88	9.73	9.73	9.73	9.44	9.44	9.44	9.59	9.30	9.16	9.16	9.40
8.59	*8.45	9.16	9.59	9.59	9.44	9.44	9.16	9.16	9.02	9.16	9.30	9.24
8.46	9.17	9.31	9.60	9.31	9.60	9.60	9.45	9.17	9.31	9.45	9.45	9.13
8.90	*8.61	9.04	9.61	9.32	9.04	8.90	8.90	8.90	9.04	9.04	9.18	9.20
9.75	9.61	9.32	9.46	8.90	9.18	9.18	9.18	9.04	9.04	9.04	9.04	9.26
9.62	9.76	10.04	10.33	*10.47	9.47	9.47	9.19	8.91	8.91	9.05	8.91	9.17
8.92	9.48	9.77	10.20	*10.34	10.05	9.77	9.91	9.91	9.77	9.77	9.77	9.36
8'.38	8'.72	9'.19	9'.57	9'.50	9'.32	9'.28	9'.23	9'.14	9'.07	9'.12	9'.18	9'.15

HORIZONTAL FORCE (0.33 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
211	199	191	185	184	179	174	175	176	176	173	171	186
220	208	196	190	180	175	174	175	175	174	173	173	187
224	214	201	190	186	182	178	177	177	177	176	174	190
224	214	202	194	189	188	183	*176	178	177	178	179	194
228	214	201	193	186	184	182	181	179	180	*178	*178	190
222	216	203	198	193	186	184	180	179	178	182	181	194
230	217	208	203	198	195	192	191	190	188	190	189	201
230	220	206	197	195	193	190	189	*187	*187	189	192	204
224	215	210	200	193	186	184	182	182	*181	185	185	199
230	219	201	192	190	188	*185	*185	187	186	187	187	201
220	207	199	198	196	193	188	*182	187	188	190	196	199
203	187	177	174	177	173	171	175	174	173	172	176	195
220	210	202	203	203	202	203	190	189	190	193	191	200
224	214	207	204	203	199	196	195	194	191	189	189	201
227	213	200	197	189	186	*181	187	188	190	189	188	201
225	214	205	193	190	186	186	186	185	*184	186	185	198
230	218	209	201	198	197	194	194	193	193	192	197	203
249	233	227	221	217	213	207	201	200	202	203	199	217
229	223	215	212	209	204	204	203	202	201	199	*198	210
242	239	229	218	217	215	211	205	209	206	206	205	214
236	229	218	214	212	210	206	206	207	207	206	205	217
230	221	215	215	214	211	208	204	203	201	*199	201	215
242	229	220	213	206	203	202	200	198	*197	198	198	214
238	226	219	219	214	212	207	208	207	206	207	207	219
214	202	193	191	186	180	178	171	*168	176	179	183	196
224	214	211	205	202	200	199	197	194	192	192	191	204
227	216	211	209	207	200	195	200	194	197	*185	206	210
228	218	205	202	199	195	194	194	200	198	198	198	206
228	211	204	202	206	207	208	205	207	205	205	205	211
245	230	218	189	*171	*171	175	181	189	192	191	195	215
220	197	185	172	161	149	130	*124	133	160	153	150	195
227	216	206	200	196	192	189	*188	*188	189	*188	189	203

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

VERTICAL FORCE (0.1 . . . + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	1027	1026	1024	1023	1021	1020	1017	1015	1014	1009	*1008	1010
2	1035	1034	1033	1032	1030	1029	1028	1027	1021	1015	*1013	1015
3	1044	1042	1040	1038	1036	1034	1031	1030	1026	1021	*1017	*1017
4	1045	1045	1044	1041	1037	1032	1034	1031	1029	1024	*1021	1023
5	1042	1042	1041	1042	1040	1039	1036	1030	1024	1018	1016	*1017
6	1045	1045	1044	1043	1042	1040	1042	1042	1040	1034	1032	*1029
7	1042	1041	1040	1040	1038	1038	1037	1029	1020	1020	1020	*1019
8	1038	1036	1034	1034	1033	1030	1028	1025	1019	*1014	1016	1019
9	1033	1033	1032	1032	1030	1030	1028	1025	1022	1017	1014	*1013
10	1033	1033	1034	1033	1035	1035	1036	1031	1027	1025	*1023	1024
11	*1030	1029	1028	1027	1026	1026	1024	1021	1013	1010	*1009	1011
12	1029	1028	1027	1028	1028	1026	1026	1022	1019	1014	*1012	1016
13	1031	1031	1030	1029	1026	1026	1024	1022	1019	1015	*1012	1014
14	1039	1038	1037	1035	1034	1034	1034	1032	1024	1021	1021	*1020
15	1042	1040	1038	1037	1036	1034	1032	1028	1023	1018	*1017	1021
16	1040	1039	1037	1035	1033	1032	1033	1033	1030	1028	*1027	1028
17	*1043	1042	1039	1037	1035	1033	1030	1029	1027	1023	*1022	1023
18	1038	1039	1037	1037	1036	1036	1034	1032	1026	*1021	1023	1026
19	*1047	1045	1044	1043	1042	1040	1038	1032	1028	1021	*1014	1020
20	1045	1043	1042	1040	1039	1037	1037	1033	1027	1023	*1019	1022
21	*1045	1040	1038	1033	1031	1028	1024	1021	1016	1012	*1011	*1012
22	1032	1032	1030	1029	1027	1027	1025	1024	1021	1020	*1018	*1018
23	1034	1033	1032	1029	1026	1022	1021	1018	1013	*1009	*1009	1013
24	*1032	1030	1028	1025	1022	1021	1019	1018	1015	1011	*1009	1012
25	1030	1030	1029	1029	1027	1027	1024	1023	1021	1016	*1015	1016
26	1030	1030	1029	1027	1026	1025	1024	1023	1021	1018	*1015	1016
27	1029	1029	1027	1026	1024	1022	1022	1020	*1015	*1015	*1015	1018
28	1037	1035	1033	1031	1031	1030	1028	1026	1024	*1023	*1023	1024
29	*1042	1041	1039	1038	1035	1034	1033	1029	1026	1024	*1023	1026
30	1036	1035	1033	1032	1030	1025	1023	1021	1020	*1013	1014	1017
31	1034	1035	1033	1033	1031	1030	1027	1026	1024	1022	*1021	1024
Mean	1037	1036	1035	1033	1032	1030	1029	1026	1022	1019	*1017	1019

EXTREME VALUES.

Easterly declination.						Horizontal force.				
Day.	Maxima.	Hour.	Minima.	Hour.	Daily range.	Maxima.	Hour.	Minima.	Hour.	Daily range.
1	0 49.71	3.10 a.	0 47.58	11 a.	2.13	0.38220	0.10 p.	0.38171	12 m.n.	0.00049
2	50.71	8 a.	46.87	1 p.	3.84	228	12 m.d.	172	2 a.	56
3	50.43	9 a.	47.45	0.54 p.	2.98	235	12 m.d.	174	12 m.n.	61
4	49.87	8 a.	47.03	1 p.	2.81	245	11 a.	176	various.	69
5	49.73	8 a.	47.18	0.21 p.	2.55	247	0.21 p.	177	11.18 p.	70
6	49.46	8.36 a.	48.32	1.40 p.	1.11	235	11 a.	177	8 a.	58
7	49.75	7 a.	48.62	1 p.	1.13	240	11 a.	181	0.31 a.	59
8	49.47	5 and 6 p.	48.33	10 a.	1.14	244	11 a.	186	9.33 p.	58
9	49.62	9.42 a.	47.92	1 p.	1.70	239	11 a.	179	10.14 p.	60
10	50.20	8 a.	48.21	11.48 a.	1.99	244	11 a.	185	7 and 8 p.	59
11	49.77	9.48 a.	48.35	4.54 a.	1.42	241	11.46 a.	181	8.03 p.	60
12	49.92	9.33 a.	48.08	4.56 a.	1.84	221	11.42 a.	167	7.04 a.	54
13	49.79	8 a.	47.51	1.19 p.	2.28	238	11.27 a.	176	1.48 a.	62
14	51.07	8 a.	47.38	12 m.d.	3.69	235	11.43 a.	186	7 a.	49
15	51.08	8 a.	48.24	0.39 p.	2.84	243	11 a.	181	7 p.	62
16	49.94	8 a.	48.10	0.06 p.	1.84	238	11 a.	184	10 p.	54
17	49.95	4.28 p.	48.11	11a.and12m.d.	1.84	240	11 a.	184	0.31 a.	56
18	49.96	4.32 p.	48.26	10.24 a.	1.70	271	11.42 a.	196	0.31 a.	75
19	50.83	8 a.	48.27	12 m.d.	2.56	237	11 a.	198	12 m.n.	39
20	50.68	7.12 a.	47.28	10.46 a.	3.40	259	10.24 a.	194	3.31 a.	65
21	50.12	8.38 a.	47.29	12 m.d.	2.83	251	11 a.	203	11.31 p.	48
22	49.71	9 and 10 a.	48.15	2 p.	1.56	249	10.44 a.	199	11 p.	50
23	49.71	8 and 9 a.	47.58	12 m.d.	2.13	255	11 a.	197	10 p.	58
24	50.71	9.08 a.	48.73	1.06 p.	1.98	263	10.53 a.	197	0.33 a.	66
25	50.44	8 a.	47.60	11.50 a.	2.84	227	10 a.	164	8.34 p.	63
26	50.41	9.11 a.	48.45	2 p.	1.99	243	11.09 a.	182	0.31 a.	61
27	49.74	8 a.	47.75	11.40 a.	1.99	247	11 a.	184	11.24 p.	63
28	49.75	8 a.	48.33	2.12 p.	1.42	244	10.48 a.	188	1.34 a.	56
29	50.31	9.33 a.	48.19	5.58 a.	2.12	239	11.10 a.	197	5.55 a.	42
30	50.75	4.45 p.	48.06	6.50 a.	2.69	233	9.28 a.	165	5.33 p.	118
31	50.48	4.54 p.	48.35	11.51 a.	2.13	238	11.24 a.	121	8.27 p.	117
Mean	50'.13		47'.92		2'.21	243		181		62

MAGNETIC OBSERVATIONS FOR OCTOBER, 1902.

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VERTICAL FORCE (0.1 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
1015	1023	1032	1035	1037	1036	1037	*1039	*1039	*1039	*1039	1038	1026
1019	1027	1035	1040	1040	1039	1042	1042	1043	1043	*1044	1043	1032
1022	1032	1037	1041	1042	1044	1044	1044	*1045	*1045	1044	1043	1036
1028	1039	1048	*1053	1052	1050	1048	1047	1046	1044	1044	1043	1040
1024	1033	1043	*1046	1045	1044	*1046	*1046	*1046	1045	1044	1042	1037
1032	1038	1044	1049	*1050	1048	1049	1047	1045	1044	1043	1042	1042
1023	1031	1037	1041	1038	1037	1037	1037	1037	1036	1037	1036	1034
1020	1028	1036	*1038	*1038	1036	1034	1034	1034	1034	1033	1033	1030
1018	1026	1030	1032	1033	1034	1034	1034	1034	1031	1032	1031	1028
1029	1033	1036	1036	*1037	1036	1035	1035	1036	1033	1032	1030	1032
1016	1020	1026	1027	1028	1029	1029	*1030	1029	1028	1027	1027	1024
1021	1025	1031	1033	1033	1034	*1036	*1036	1034	1031	1030	1030	1022
1019	1028	1035	1036	1036	1037	1038	*1040	*1040	*1040	*1040	1039	1029
1025	1030	1036	1039	1042	1045	1046	*1047	*1047	1046	1045	1044	1036
1028	1035	1039	1041	1042	1044	*1046	*1046	1045	1044	1043	1042	1036
1037	1043	*1052	1052	1052	*1053	*1053	*1053	1052	1050	1049	1046	1041
1026	1033	1038	1039	1039	1038	1039	1039	1039	1040	1039	1039	1035
1032	1037	1045	1048	1048	1049	*1050	*1050	*1050	1049	1048	1047	1039
1028	1034	1039	1042	1044	1044	1044	1045	1045	1046	*1047	1045	1038
1030	1037	1045	1048	1049	1050	1049	*1051	1050	1049	1050	1049	1040
1015	1020	1026	1028	1028	1028	1029	1031	1031	1031	1031	1031	1027
1020	1024	1029	1031	1033	*1035	*1035	*1035	1034	1034	1033	1032	1028
1017	1021	1027	1033	1036	1037	1037	*1038	1036	1035	1034	1033	1027
1018	1023	1027	1029	1030	1030	1030	1031	1031	1031	1030	1030	1024
1021	1026	1030	1034	1034	1034	*1035	1034	1033	1033	1031	1031	1028
1019	1022	1026	1028	1029	1029	1030	1030	1030	*1031	*1031	1030	1026
1023	1027	1030	1032	1035	*1037	1036	1036	*1037	1036	1033	1033	1027
1029	1031	1038	*1040	*1040	*1040	*1040	*1040	1039	1039	1039	1037	1033
1030	1032	1036	1038	1039	1039	1040	1037	1036	1034	1032	1032	1034
1022	1026	1030	1032	1032	1033	1032	1031	1031	1032	1030	1031	1028
1026	1030	1036	1036	1036	1038	1039	1040	*1042	1041	1041	1040	1033
1024	1029	1035	1038	1039	1039	1039	*1040	1039	1039	1038	1037	1032

EXTREME VALUES.

Vertical force.					Northerly dip.					
Maxima.	Hour.	Minima.	Hour.	Daily range.	Daily mean.	Maxima.	Hour.	Minima.	Hour.	Daily range.
0. 11039	8 to 11 p.	0. 11010	11 a.	0. 00029	16 06.35	16 07.74	11 p.	16 04.20	0.10 p.	3.54
1044	11 p.	1013	11 a.	31	6.82	8.15	11 p.	4.36	11 a.	3.79
1045	9 and 10 p.	1017	11 a. and 12 m.d.	28	7.08	8.14	9 and 10 p.	4.42	12 m.d.	3.72
1053	4 p.	1021	11 a.	32	7.32	8.40	4 p.	4.51	11 a.	3.89
1046	various.	1016	11 a.	30	7.17	8.18	9 p.	4.39	0.21 p.	3.79
1050	5 p.	1029	12 m.d.	21	7.48	8.23	8 p.	5.45	12 m.d.	2.78
1042	1 a.	1019	12 m.d.	23	6.65	7.80	0.31 a.	4.49	12 m.d.	3.31
1038	4 and 5 p.	1012	10.09 a.	26	6.25	7.20	1 a.	4.13	11 a.	3.07
1034	6 to 9 p.	1013	12 m.d.	21	6.20	7.11	8 and 9 p.	4.05	12 m.d.	3.06
1037	5 p.	1023	11 a.	14	6.49	7.17	5 p.	4.71	11 a.	2.46
1032	8.25 p.	1008	11.24 a.	24	5.87	6.80	8.03 p.	3.56	11.24 a.	3.24
1036	7 and 8 p.	1012	11 a.	24	5.80	7.54	7 p.	4.44	11 a.	3.10
1043	10.30 p.	1011	11.15 a.	32	6.26	7.54	10.30 p.	3.93	11.15 a.	3.61
1048	8.36 p.	1020	12 m.d.	28	6.82	7.99	8.36 p.	4.66	11.43 a.	3.33
1046	7 and 8 p.	1017	11 a.	29	6.82	8.13	7 p.	4.23	11 a.	3.90
1053	6 to 8 p.	1027	11 a.	26	7.31	8.59	6, 7 and 8 p.	5.18	11 a.	3.41
1044	0.31 a.	1022	11 a.	22	6.69	7.88	0.31 a.	4.72	11 a.	3.16
1050	7 to 9 p.	1021	10 a.	29	6.68	8.00	9 p.	4.33	11.42 a.	3.67
1049	0.03 a.	1014	11 a.	35	6.77	7.88	0.03 a.	4.13	11 a.	3.75
1051	8 p.	1018	11.29 a.	33	6.84	7.97	8 p.	4.05	11.29 a.	3.92
1045	1 a.	1011	11 a.	34	5.68	7.42	1 a.	3.55	11 a.	3.87
1035	6 to 8 p.	1018	11 a. and 12 m.d.	17	5.82	6.66	8 p.	4.20	11 a.	2.46
1038	8 p.	1008	11.18 a.	30	5.76	7.01	8 p.	3.28	11 a.	3.73
1033	0.33 a.	1009	11 a.	24	5.39	6.67	0.33 a.	3.18	10.53 a.	3.49
1035	7 p.	1015	11 a.	20	6.28	7.46	8.34 p.	4.53	10 and 11 a.	2.93
1032	11.24 p.	1014	11.09 a.	18	5.92	6.78	0.31 a.	3.99	11.09 a.	2.79
1039	9.15 p.	1014	10.48 a.	25	5.85	7.09	9.15 p.	3.89	10.48 a.	3.20
1041	6.27 p.	1023	10 and 11 a.	18	6.45	7.37	6.27 p.	4.71	10.48 a.	2.66
1042	1 a.	1023	11 a.	19	6.41	7.28	1 a.	4.83	11.10 a.	2.45
1036	1 a.	1012	10.50 a.	24	5.82	7.43	5.33 p.	3.35	9.28 a.	4.08
1045	9.18 p.	1020	11.24 a.	25	6.71	9.16	8.27 p.	4.60	11.24 a.	4.56
1042		1016		26	6'.44	7'.64		4'.26		3'.38

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

EASTERLY DECLINATION ($0^{\circ} 40'$ + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	*9'.77	*9'.77	*9'.77	9'.63	9'.34	9'.06	8'.35	8'.49	8'.21	8'.21	*7'.92	8'.21
2-----	8.78	8.92	8.92	8.78	8.63	8.49	8.78	9.49	*9.63	9.06	8.49	*8.21
3-----	9.08	9.22	9.36	9.22	9.22	9.22	9.51	*9.79	*9.79	9.65	*8.80	*8.80
4-----	9.08	9.08	9.08	9.08	9.08	8.94	8.80	8.80	8.94	8.80	*8.51	8.65
5-----	8.95	8.95	8.95	8.95	8.81	8.52	8.38	8.95	9.09	8.38	*8.10	8.24
6-----	9.10	9.24	9.10	9.10	9.10	9.24	9.38	*9.52	8.82	*8.25	*8.25	*8.25
7-----	8.82	8.82	8.82	8.68	8.68	8.68	8.68	9.10	9.52	*9.67	9.24	*8.53
8-----	8.97	8.97	8.97	8.97	8.97	8.83	8.83	9.11	9.11	9.25	8.97	8.83
9-----	8.98	8.98	8.84	8.69	8.84	8.84	8.98	9.26	9.26	9.40	8.98	*8.41
10-----	*8.84	*8.84	8.98	8.98	8.98	8.98	9.26	9.83	*10.26	*10.26	9.83	9.54
11-----	8.85	8.85	8.85	8.70	8.70	8.85	8.99	9.27	*9.41	8.99	8.56	*8.28
12-----	*9.00	*9.00	*9.00	*9.00	*9.00	*9.00	9.42	9.99	*10.13	9.85	9.56	9.70
13-----	9.28	9.28	9.14	9.00	8.86	8.71	8.57	9.00	9.00	9.28	8.71	*8.29
14-----	9.01	9.01	9.01	8.87	8.72	8.44	*8.30	8.44	8.72	8.86	*8.30	8.44
15-----	9.02	9.30	9.30	9.16	9.30	9.02	8.59	8.88	9.02	8.59	*7.88	8.31
16-----	9.16	9.44	9.30	9.44	9.44	9.30	9.73	9.87	*10.15	9.87	9.30	*9.02
17-----	9.03	9.03	9.03	9.03	8.89	*8.60	8.74	9.31	9.31	9.45	*9.60	9.03
18-----	8.90	9.04	9.04	8.90	8.75	8.61	*8.47	9.04	9.32	8.90	8.90	9.04
19-----	8.90	9.04	9.04	9.04	9.04	8.47	*8.19	8.33	*8.19	8.33	8.47	9.18
20-----	8.91	8.91	9.05	9.05	9.05	8.91	*8.48	8.76	9.62	9.33	8.76	8.76
21-----	8.77	8.77	8.92	9.06	9.20	8.92	9.06	9.48	*9.91	9.77	9.48	9.77
22-----	8.63	8.63	8.63	8.63	8.49	8.35	*7.92	8.35	8.77	9.48	9.48	9.63
23-----	8.78	8.64	9.07	8.93	8.78	8.50	*8.36	8.93	9.78	9.49	9.78	9.64
24-----	9.36	9.65	9.65	9.36	9.08	8.51	8.37	*7.80	8.08	8.37	8.51	9.79
25-----	8.65	9.65	9.36	9.08	9.08	8.65	7.37	*7.23	7.52	7.94	8.51	9.79
26-----	9.09	8.52	8.66	8.52	8.66	8.52	*7.95	*7.95	8.09	8.80	9.66	*10.22
27-----	9.24	9.38	9.38	9.24	9.24	9.10	*8.53	*8.53	*8.53	8.96	9.38	*9.81
28-----	8.96	9.10	8.96	8.67	8.67	8.67	*8.53	8.67	9.52	9.81	*9.95	*9.95
29-----	8.82	8.82	8.82	8.82	8.68	8.54	*7.97	*7.97	*7.97	8.54	8.68	9.39
30-----	8.69	8.69	8.69	8.69	8.69	8.55	*7.70	7.84	8.12	8.55	8.83	8.69
Mean	8'.98	9'.05	9'.06	8'.98	8'.93	8'.77	*8'.61	8'.87	9'.06	9'.07	8'.91	9'.01

HORIZONTAL FORCE (0.38 ... + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	*154	164	175	183	177	177	176	181	191	196	203	*204
2-----	185	*184	187	187	188	190	196	204	217	227	*233	230
3-----	192	*189	*189	196	195	197	204	215	227	236	242	*244
4-----	*199	202	201	202	202	203	207	220	229	237	*246	241
5-----	*206	*206	207	207	207	207	213	225	242	251	*252	247
6-----	*206	*206	210	210	210	212	213	222	235	252	*264	262
7-----	212	211	220	212	209	212	212	215	232	236	*253	242
8-----	208	206	207	208	208	209	215	225	236	244	*249	246
9-----	212	211	212	213	209	209	206	210	226	238	245	*246
10-----	*202	*202	206	206	208	208	209	217	229	241	*247	243
11-----	*208	210	212	212	211	209	211	219	234	245	*252	250
12-----	217	216	217	213	214	*211	217	227	237	247	*249	247
13-----	215	213	216	212	208	211	219	226	247	250	*255	248
14-----	205	203	204	208	205	209	214	221	232	245	247	243
15-----	208	211	215	208	204	203	207	218	239	251	*256	254
16-----	209	209	208	207	201	207	214	224	234	*245	244	240
17-----	202	202	202	205	207	207	213	222	231	241	*249	242
18-----	*190	192	191	195	194	196	203	213	231	246	*248	239
19-----	201	204	204	198	194	199	208	220	234	249	*255	*255
20-----	*189	194	193	194	193	192	192	200	219	231	*236	235
21-----	192	194	191	192	191	190	193	200	217	227	*235	231
22-----	191	183	187	188	188	189	196	207	220	230	*237	228
23-----	181	203	186	184	182	186	195	206	215	219	*228	219
24-----	168	180	177	172	172	175	175	174	*185	184	184	183
25-----	170	158	157	163	160	160	166	168	182	194	*199	198
26-----	*157	166	167	174	171	164	166	171	176	187	191	188
27-----	167	*166	*166	168	171	172	180	190	201	*212	210	207
28-----	*172	173	174	175	176	175	180	183	194	205	*213	211
29-----	178	181	182	181	182	183	192	204	211	222	*225	222
30-----	179	179	180	181	183	183	189	198	210	217	*221	*221
Mean	193	194	195	195	194	195	199	208	220	230	*236	232

MAGNETIC OBSERVATIONS FOR NOVEMBER, 1902.

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EASTERLY DECLINATION ($0^{\circ} 40'$ + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
9'.63	9'.63	9'.63	9'.49	9'.34	9'.20	9'.20	9'.06	8'.92	8'.92	8'.63	8'.78	9'.05
8.49	9.20	9.06	9.34	9.34	9.20	9.20	9.06	8.92	8.92	8.92	9.06	8.97
9.22	9.22	8.94	9.22	9.22	9.22	9.22	9.08	8.94	8.94	8.94	9.08	9.20
*9.22	8.80	8.65	8.94	*9.22	9.08	9.08	9.08	9.08	8.94	8.94	8.94	8.95
8.52	8.81	8.52	8.67	8.95	9.09	*9.23	*9.23	9.09	8.95	8.95	8.95	8.80
*8.25	*8.25	8.39	9.24	*9.52	9.10	9.10	9.10	8.96	8.82	8.68	8.82	8.90
8.82	8.82	8.96	9.24	9.24	8.96	8.96	8.96	8.96	8.96	8.96	8.96	8.96
8.97	8.83	*8.54	9.11	*9.53	*9.53	9.39	9.25	9.11	8.97	8.97	8.97	9.04
*8.41	8.98	9.26	9.54	*9.68	9.54	9.40	9.26	9.12	8.98	8.84	8.69	9.05
9.40	9.54	9.54	9.68	9.40	9.26	9.12	8.98	8.98	*8.84	*8.84	*8.84	9.29
8.42	8.42	8.42	8.70	8.99	9.13	8.99	8.99	8.99	8.85	8.85	8.99	8.84
9.28	*9.00	9.42	9.85	9.42	*9.00	9.14	9.28	9.28	9.14	9.14	9.28	9.33
9.14	9.71	*9.85	*9.85	9.71	9.57	9.28	9.14	9.00	9.00	9.00	9.00	9.14
8.87	9.43	9.72	*10.00	9.86	9.29	9.43	9.29	9.01	8.87	8.87	9.01	8.99
8.73	9.30	9.16	*9.73	*9.73	*9.73	9.59	9.30	9.30	9.16	9.16	9.16	9.10
9.44	9.30	9.44	9.73	9.87	9.44	9.30	9.16	*9.02	*9.02	*9.02	9.16	9.41
9.31	9.31	9.31	9.45	9.45	9.31	9.17	9.03	8.89	8.74	8.74	8.89	9.11
9.18	9.32	9.32	9.32	*9.46	*9.46	9.32	9.18	9.04	8.90	8.90	8.90	9.05
*9.89	*9.89	9.75	*9.89	*9.89	9.32	9.04	9.18	8.90	8.90	8.90	8.75	9.02
*9.76	*9.76	9.05	9.19	*9.76	9.47	9.19	9.05	9.05	8.91	8.91	8.76	9.10
*9.91	*9.91	9.77	9.48	9.63	9.48	9.20	9.06	8.77	8.63	8.63	8.63	9.26
*9.91	9.63	9.20	9.06	9.63	9.77	9.34	9.20	9.06	8.77	8.77	8.92	9.01
9.78	9.78	9.64	9.21	9.21	*9.49	9.92	9.49	9.21	8.78	8.64	9.07	9.20
*10.50	9.93	9.50	9.50	9.22	9.22	9.08	8.94	8.79	8.79	9.08	9.08	9.09
9.93	9.93	9.93	*10.21	9.93	9.36	9.36	9.22	9.22	9.08	9.08	8.94	9.08
9.94	9.80	9.37	9.51	9.66	9.37	9.23	9.09	9.09	8.95	9.23	9.09	9.04
*9.81	9.52	9.38	9.38	9.52	9.38	9.24	9.24	9.10	8.96	8.96	8.96	9.12
9.52	9.24	8.81	9.10	9.10	9.10	9.10	9.10	9.10	9.10	8.96	8.96	9.11
9.82	9.82	*9.96	9.82	9.53	9.39	9.11	9.11	9.11	8.97	8.82	8.82	8.96
8.83	9.12	9.12	*9.69	9.54	9.26	9.26	9.40	9.12	8.98	9.12	9.12	8.85
9'.30	9'.34	9'.25	9'.44	*9'.49	9'.32	9'.24	9'.16	9'.04	8'.92	8'.91	8'.95	9'.07

HORIZONTAL FORCE (0.38 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
200	192	186	188	185	182	181	183	183	184	183	183	184
225	213	205	199	199	195	194	195	195	195	197	193	201
231	223	215	207	203	200	199	197	197	197	198	197	208
235	226	220	217	216	212	210	210	209	207	206	208	211
237	230	217	213	214	213	212	212	211	210	209	207	219
255	246	230	223	217	215	212	209	209	207	207	217	223
232	222	214	214	213	213	212	211	210	*209	*209	210	218
236	226	221	216	212	208	205	205	205	*204	206	211	218
234	226	215	213	213	210	205	203	*202	205	205	*202	215
233	225	219	215	211	210	209	207	206	205	205	206	215
242	234	225	223	224	222	219	217	218	215	214	212	222
242	235	228	224	225	220	218	217	216	216	214	213	224
231	220	217	215	213	209	201	*190	198	201	205	206	218
*250	242	228	219	215	211	212	207	218	217	209	*202	219
245	232	210	208	204	206	202	201	*198	205	201	203	216
232	220	211	208	205	203	201	*198	199	202	200	202	213
233	218	213	204	196	199	199	196	194	194	*193	*193	211
232	224	214	205	203	199	198	196	198	199	201	198	209
241	229	219	206	204	197	195	193	*188	191	190	191	211
225	215	209	202	200	197	196	197	198	197	197	195	204
220	209	200	192	187	*186	190	189	189	189	190	191	199
220	210	198	193	190	189	190	190	187	185	*182	*182	198
208	201	195	177	188	174	*159	175	170	167	170	167	190
174	163	157	154	152	142	138	*128	*128	141	136	138	162
190	181	172	166	155	151	*148	149	150	152	152	156	167
*193	189	185	184	181	176	176	176	177	175	177	172	177
200	192	194	189	187	182	181	176	172	173	172	171	183
204	199	194	187	184	180	177	178	177	178	179	179	185
215	208	196	187	184	185	178	178	*177	178	*177	179	192
211	195	179	176	173	172	170	*167	168	168	170	170	186
224	215	206	201	198	195	193	*192	*192	*192	*192	*192	203

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

VERTICAL FORCE (0.1 . . . + the numbers in the table)

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1-----	*1040	1039	1038	1037	1035	1034	1032	1029	1026	1025	*1024	1027
2-----	1037	1036	1036	1034	1034	1033	1032	1031	1030	1027	*1024	1026
3-----	*1039	*1039	1035	1036	1035	1034	1033	1028	1025	1022	*1019	1020
4-----	1030	1031	1030	1030	1028	1027	1025	1023	1020	1018	*1017	1019
5-----	1038	1037	1036	1034	1032	1031	1030	1029	1023	*1019	*1019	1023
6-----	1036	1035	1034	1032	1030	1029	1027	1023	1021	1019	*1017	1019
7-----	1040	1039	1038	1037	1034	1033	1032	1029	1027	1026	1024	*1022
8-----	*1041	1040	1039	1038	1035	1034	1032	1032	1031	1028	*1025	*1025
9-----	1032	1032	1032	1033	1032	1033	1033	1033	1033	1030	*1027	*1027
10-----	*1039	1036	1035	1032	1031	1029	1027	1025	1022	1020	*1018	1021
11-----	1037	1036	1035	1034	1033	1030	1029	1026	1024	1021	*1018	*1018
12-----	1036	1034	1033	1030	1026	1024	1022	1019	1017	1015	*1013	1014
13-----	*1032	1031	1028	1024	1020	1017	1014	1011	1010	*1008	*1008	*1008
14-----	1030	1030	1029	1028	1025	1024	1023	1022	1019	1017	*1014	1016
15-----	1034	1032	1030	1027	1026	1023	1021	1018	1013	1011	*1010	1013
16-----	*1029	1028	1026	1024	1021	1020	1018	1015	1010	*1004	*1004	1006
17-----	1021	1020	1019	1018	1016	1015	1013	1010	1010	*1008	*1008	*1008
18-----	1025	1025	1024	1024	1023	1021	1019	1018	1017	*1013	*1013	1018
19-----	*1044	*1044	*1044	1041	1040	1039	1037	1034	1029	*1025	*1025	1026
20-----	1037	1037	1036	1034	1033	1033	1032	1031	1031	1030	*1026	1027
21-----	1045	1044	1043	1041	1039	1036	1035	1034	1034	1030	*1028	1029
22-----	*1048	1046	*1048	1046	1045	1044	1043	1041	1039	1036	*1035	*1035
23-----	1043	1043	1042	1042	1042	1040	1038	1037	1036	*1033	1035	*1033
24-----	*1047	1045	1043	1039	1037	1035	1032	1030	*1027	*1027	1028	1030
25-----	*1036	1035	1033	1032	1031	1030	1028	1027	1027	*1026	1027	1029
26-----	1035	1034	1032	1031	1031	1030	1028	1027	1027	*1023	1024	1025
27-----	*1035	*1035	1033	1032	1031	1028	1026	*1025	*1025	*1025	1026	1026
28-----	1030	1028	1027	1024	1023	1024	1023	1021	1021	1020	1018	*1017
29-----	1030	1028	1028	1026	1026	1028	1028	1026	*1024	1026	1028	1030
30-----	1027	1029	1027	1025	1025	1023	1023	1023	1019	*1016	*1016	1018
Mean	1036	1035	1034	1032	1031	1029	1028	1026	1024	1022	*1021	1022

EXTREME VALUES.

Easterly declination.						Horizontal force.				
Day.	Maxima.	Hour.	Minima.	Hour.	Daily range.	Maxima.	Hour.	Minima.	Hour.	Daily range.
1-----	0 49.77	1 to 3 a.	0 47.78	11.14 a.	1.99	0.38206	11.28 a.	0.38151	0.02 a.	0.00055
2-----	49.63	9 a.	48.21	12 m.d.	1.42	233	11 a.	184	2 a.	49
3-----	49.79	8 and 9 a.	48.66	11.22 a.	1.13	244	12 m.d.	187	1.51 a.	57
4-----	49.36	1.16 p.	48.51	11 a.	0.85	246	11 a.	198	0.01 a.	48
5-----	49.23	7 and 8 p.	48.10	11 a.	1.13	254	10.32 a.	205	0.02 a.	49
6-----	49.52	8 a. and 5 p.	48.11	0.20 p.	1.41	265	11.19 a.	205	0.31 a.	60
7-----	49.67	10 a.	48.53	12 m.d.	1.14	254	11.16 a.	209	10 and 11 p.	45
8-----	49.67	5.14 p.	48.54	3 p.	1.13	251	10.49 a.	202	10.22 p.	49
9-----	49.68	5 p.	48.27	0.37 p.	1.41	248	11.43 a.	202	9 p. and 12 m.n.	46
10-----	50.40	9.42 a.	48.70	11.32 p.	1.70	248	10.53 a.	201	0.31 a.	47
11-----	49.41	9 a.	48.14	0.13 p.	1.27	252	11 a.	207	0.31 a.	45
12-----	50.13	9 a.	48.86	0.50 a.	1.27	251	10.15 a.	210	5.31 a.	41
13-----	49.85	3 and 4 p.	48.29	12 m.d.	1.56	255	11 a.	190	8 p.	65
14-----	50.00	4 p.	48.30	7 and 11 a.	1.70	257	0.30 p.	193	10.28 p.	64
15-----	49.73	4 to 6 p.	47.88	11 a.	1.85	256	11 a.	194	8.36 p.	62
16-----	50.29	9.30 a.	49.02	12 m.d.	1.27	245	10 a.	194	8.52 p.	51
17-----	49.60	11 a.	48.32	6.24 a.	1.28	249	11 a.	193	11 p. and 12 m.n.	56
18-----	49.60	6.20 p.	48.47	7 a.	1.13	248	11 a.	189	0.57 a.	59
19-----	50.03	4.44 p.	48.19	7 and 9 a.	1.84	257	11.46 a.	188	9 p.	69
20-----	49.76	1, 2 and 5 p.	48.48	7 a.	1.28	236	11 a.	189	1 a.	47
21-----	50.05	8.50 a.	48.49	11.52 p.	1.56	235	11 a.	186	6 p.	49
22-----	49.91	1 p.	47.92	7 a.	1.99	238	10.54 a.	180	11.25 a.	58
23-----	50.20	7.12 p.	48.36	7 a.	1.84	228	11 a.	153	7.24 p.	75
24-----	50.64	0.52 p.	47.66	8.23 a.	2.98	193	10.20 a.	124	8.51 p.	69
25-----	50.21	4 p.	47.09	7.46 a.	3.12	199	11 a.	148	7 p.	51
26-----	50.22	12 m.d.	47.95	7 and 8 a.	2.27	193	1 p.	157	1 a.	36
27-----	49.95	11.46 a.	48.89	7.20 a.	1.56	213	10.06 a.	166	2 and 3 a.	47
28-----	49.95	11 a. and 12 m.d.	48.58	7 a.	1.42	213	11 a.	171	0.03 a.	42
29-----	49.96	3 p.	47.97	7 to 9 a.	1.99	225	11 a.	177	9 and 11 p.	48
30-----	49.83	4.15 p.	47.56	7.23 a.	2.27	223	11.31 a.	167	8 p.	56
Mean	49' 87		48' 24		1' 63	237		184		53

MAGNETIC OBSERVATIONS FOR NOVEMBER, 1902.

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VERTICAL FORCE (0.1 . . . + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
1030	1031	1034	1035	1035	1037	1038	1038	1038	1038	1038	1037	1034
1030	1033	1034	1037	1039	1039	1039	1040	1040	1040	*1041	1040	1035
1024	1026	1027	1029	1030	1030	1031	1031	1031	1031	1032	1030	1030
1023	1026	1029	1035	1036	1037	1039	*1040	1039	1038	1037	1038	1030
1029	1033	1036	1040	1041	1041	*1042	*1042	1041	1039	1038	1036	1034
1023	1024	1030	1038	1041	1041	1042	*1043	*1043	1042	1042	1041	1032
1025	1030	1034	1039	1041	1043	1043	1043	*1044	1043	1042	1041	1035
1026	1026	1028	1030	1030	1030	1030	1030	1031	1031	1031	1032	1031
1029	1032	1036	1040	*1043	1042	*1043	*1043	*1043	*1043	1042	1041	1036
1025	1029	1032	1034	1035	1035	1035	1037	1037	1038	1036	1037	1031
1020	1026	1031	1036	1038	1039	1040	*1041	*1041	1040	1039	1038	1032
1017	1020	1025	1030	1034	1035	1036	*1037	*1037	*1037	1035	1034	1028
1011	1016	1021	1023	1025	1026	1029	1029	1029	1030	1031	1031	1021
1020	1024	1028	1031	1031	1032	1034	1035	*1036	1035	1035	1035	1027
1019	1024	1029	1032	1035	*1036	1035	1034	1032	1032	1031	1030	1026
1010	1013	1020	1023	1025	1026	1026	1026	1027	1026	1026	1025	1020
1011	1014	1018	1021	*1023	*1023	1022	1022	1022	*1023	1022	1022	1017
1024	1029	1034	1037	1040	*1041	*1041	*1041	*1041	*1041	*1041	1040	1029
1028	1033	1037	1039	1041	1040	1040	1040	1040	1040	1039	1039	1034
1028	1034	1039	1044	*1049	1048	1048	1048	1046	1045	1044	1043	1038
1031	1035	1039	1041	1044	1046	1046	1046	1046	*1048	1046	1046	1040
*1035	1036	1040	1043	1045	1046	*1048	*1048	*1048	*1048	1046	1046	1043
1035	1036	1037	1040	1045	1047	*1050	*1050	*1050	1048	*1050	1048	1042
1030	1030	1032	1033	1035	1036	1037	1037	1037	1036	1036	1035	1034
1029	1029	1030	1032	1033	1035	1035	*1036	1035	*1036	1035	1034	1032
1027	1030	1030	1034	1037	1038	*1039	*1039	1038	1037	1037	1035	1032
1028	1031	*1035	*1035	1033	*1035	*1035	*1035	1033	1032	1032	1031	1031
1020	1025	1030	1032	*1034	1032	*1034	*1034	*1034	*1034	1032	1031	1027
1032	1032	1034	1034	1036	*1038	1036	1034	1034	1032	1032	1030	1031
1021	1025	1031	1035	1035	*1037	*1037	1035	1035	1035	1033	1031	1028
1025	1028	1031	1034	1036	1037	*1038	*1038	*1038	1037	1037	1036	1031

EXTREME VALUES.

Vertical force.					Northerly dip.					
Maxima.	Hour.	Minima.	Hour.	Daily range.	Daily mean.	Maxima.	Hour.	Minima.	Hour.	Daily range.
0. 11040	1 a.	0. 11024	11 a.	0. 00016	16 07. 06	16 08. 35	0.02 a.	16 05. 77	11 a.	2. 58
1041	11 p.	1024	11 a.	17	6. 73	7. 34	12 m.n.	5. 05	11 a.	2. 29
1039	1 and 2 a.	1018	11.26 a.	21	6. 15	7. 35	2 a.	4. 32	11.26 a.	3. 03
1040	8 p.	1017	11 a.	23	6. 08	6. 93	8 p.	4. 16	11 a.	2. 77
1042	7 and 8 p.	1019	10 and 11 a.	23	6. 22	7. 05	7 and 8 a.	4. 14	10.32 a.	2. 91
1043	8 and 9 p.	1017	11 a.	26	5. 96	7. 21	8 and 9 p.	3. 73	11 a.	3. 48
1044	9 p.	1022	12 m.d.	16	6. 32	7. 27	9 p.	4. 47	11.16 a.	2. 80
1041	1 a.	1025	11 a. and 12 m.d.	16	6. 00	7. 07	1 a.	4. 76	11 a.	2. 31
1043	various.	1027	11 a. and 12 m.d.	16	6. 48	7. 37	9 p.	4. 95	11.43 a.	2. 42
1039	1 a.	1016	11 15 a.	23	6. 07	7. 04	1 a.	4. 22	11 a.	2. 82
1041	8 and 9 p.	1017	0.15 p.	24	5. 98	6. 85	8 p.	4. 09	0.15 p.	2. 76
1037	8 to 10 p.	1013	11 a.	24	5. 60	6. 54	9 and 10 p.	3. 75	11 a.	2. 79
1032	1 a.	1008	10 to 12 m.d.	24	5. 17	6. 50	8 p.	3. 20	11 a.	3. 30
1036	9 p.	1014	11 a.	22	5. 64	6. 84	10.28 p.	3. 89	11 a.	2. 95
1036	6 p.	1010	11 a.	26	5. 63	6. 74	8.36 p.	3. 34	11 a.	3. 40
1029	1 a.	1004	10 and 11 a.	25	5. 20	6. 24	8.52 p.	3. 11	10 a.	3. 13
1023	5, 6, and 10 p.	1008	10 a. to 12 m.d.	15	5. 00	5. 91	10 p.	3. 34	11 a.	2. 57
1041	6 to 11 p.	1013	10 and 11 a.	28	6. 04	7. 35	8 p.	3. 78	11 a.	3. 57
1044	1 to 3 a.	1025	10 and 11 a.	19	6. 41	7. 48	1 a.	4. 61	11 a.	2. 87
1049	5 p.	1026	11 a.	23	6. 91	7. 93	7 p.	5. 15	11 a.	2. 78
1048	10 p.	1028	11 a.	20	7. 20	8. 10	10 p.	5. 34	11 a.	2. 76
1048	various.	1035	11 a. to 1 p.	13	7. 48	8. 20	10 p.	5. 85	10.54 a.	2. 35
1051	3.38 p.	1033	10 a. and 12 m.d.	18	7. 58	9. 13	7.24 p.	6. 09	11 a.	3. 04
1047	1 a.	1027	9 and 10 a.	20	7. 59	8. 75	8.15 p.	6. 26	10.20 a.	2. 49
1039	0.38 a.	1026	10 a.	13	7. 30	8. 07	8 p.	6. 12	11 a.	1. 95
1039	7 to 9 p.	1023	10 a.	16	7. 06	7. 79	1 a.	6. 06	11 a.	1. 73
1035	various.	1025	8 to 10 a.	10	6. 83	7. 52	2 a.	5. 62	10.06 a.	1. 90
1034	various.	1017	12 m.d.	17	6. 45	7. 22	7 and 9 p.	5. 00	12 m.d.	2. 22
1038	6 p.	1024	9 a.	14	6. 62	7. 37	7 p.	5. 48	10 a.	1. 89
1037	6 and 7 p.	1016	10 and 11 a.	21	6. 52	7. 65	7 p.	4. 67	11 a.	2. 98
1040		1020		20	6'. 37	7'. 37		4'. 68		2'. 69

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

EASTERLY DECLINATION ($0^{\circ} 40' +$ the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	9'. 13	9'. 27	9'. 27	9'. 13	8'. 99	*8'. 56	*8'. 56	*8'. 56	8'. 99	9'. 27	8'. 84	8'. 70
2	8. 70	8. 84	8. 84	8. 56	8. 56	*8. 42	*8. 42	8. 56	8. 84	9. 84	9. 41	8. 84
3	9. 01	9. 01	9. 15	9. 15	8. 86	*8. 58	*8. 58	*8. 58	*8. 58	8. 86	9. 57	9. 57
4	9. 16	9. 16	9. 16	9. 16	8. 87	8. 59	*8. 45	8. 59	8. 73	9. 30	10. 01	*10. 44
5	9. 03	9. 03	9. 17	9. 03	8. 88	8. 60	*8. 03	8. 32	8. 46	8. 46	8. 88	9. 31
6	9. 18	9. 18	9. 32	9. 04	8. 75	8. 61	*8. 47	8. 61	9. 32	9. 60	*9. 75	9. 18
7	9. 05	9. 19	9. 05	8. 90	8. 76	*8. 62	*8. 62	8. 90	9. 90	10. 18	10. 32	*10. 61
8	9. 06	9. 06	9. 06	9. 06	8. 91	8. 77	*8. 63	*8. 63	9. 20	9. 48	*10. 05	*10. 05
9	8. 78	8. 92	8. 92	8. 92	8. 78	8. 64	*8. 21	8. 50	9. 49	9. 78	9. 78	9. 78
10	9. 08	8. 93	9. 08	8. 93	9. 08	8. 79	8. 65	*8. 22	8. 65	8. 65	8. 65	8. 65
11	8. 93	9. 08	8. 93	8. 93	8. 93	8. 93	*8. 65	*8. 65	9. 08	9. 46	9. 29	9. 29
12	9. 41	9. 26	9. 41	9. 26	9. 12	9. 12	*8. 69	*8. 69	9. 69	10. 12	9. 55	9. 69
13	9. 54	9. 40	9. 40	9. 35	9. 16	8. 82	8. 34	*8. 30	8. 98	8. 98	*8. 30	8. 81
14	9. 40	9. 54	9. 54	9. 54	9. 26	8. 97	*8. 83	*8. 83	9. 55	10. 11	10. 11	10. 26
15	9. 77	9. 63	9. 49	9. 35	9. 06	8. 92	*8. 78	9. 05	9. 90	9. 76	9. 48	*10. 04
16	9. 33	9. 33	9. 19	9. 19	9. 05	8. 77	*8. 48	8. 62	8. 91	9. 48	9. 33	8. 77
17	9. 15	9. 29	9. 44	9. 44	9. 44	9. 15	8. 29	*7. 86	8. 01	8. 86	9. 72	9. 58
18	9. 32	9. 32	9. 32	9. 18	9. 18	9. 04	*8. 75	8. 89	9. 18	9. 47	9. 18	9. 18
19	9. 21	9. 21	9. 21	9. 21	9. 07	9. 07	8. 78	*8. 21	8. 64	9. 21	9. 35	9. 35
20	9. 24	9. 24	9. 24	9. 24	9. 24	9. 24	*9. 10	*9. 10	9. 81	*10. 38	10. 24	*9. 10
21	9. 27	9. 27	9. 27	9. 27	9. 27	9. 27	9. 13	*8. 98	9. 27	*10. 13	9. 41	9. 13
22	9. 30	9. 30	9. 30	9. 30	9. 30	9. 30	8. 87	9. 16	9. 44	10. 16	9. 87	8. 87
23	9. 33	9. 33	9. 33	9. 33	9. 33	9. 04	*8. 04	8. 19	8. 62	9. 19	9. 90	9. 04
24	9. 36	9. 36	9. 36	8. 93	8. 93	9. 22	8. 65	8. 93	9. 50	9. 65	9. 79	9. 22
25	9. 39	9. 39	9. 39	9. 39	9. 39	9. 25	8. 82	9. 53	10. 53	*10. 96	10. 25	8. 96
26	9. 42	9. 42	9. 28	9. 28	9. 28	9. 28	*8. 56	8. 99	9. 56	10. 42	*10. 99	10. 71
27	9. 45	9. 45	9. 45	9. 31	9. 16	9. 16	*8. 59	9. 31	10. 31	*10. 88	10. 74	10. 02
28	9. 34	9. 34	9. 34	9. 19	9. 05	8. 77	*8. 19	9. 05	10. 48	*10. 91	10. 62	9. 77
29	9. 51	9. 51	9. 37	9. 37	9. 08	9. 08	*8. 80	9. 22	9. 51	10. 08	10. 23	*10. 37
30	9. 54	9. 54	9. 54	9. 40	9. 25	8. 97	*8. 83	9. 40	10. 11	10. 26	*10. 97	*10. 97
31	9. 57	9. 43	9. 43	9. 43	9. 28	9. 00	*8. 71	9. 00	9. 57	9. 86	10. 00	9. 14
Mean	9'. 26	9'. 27	9'. 27	9'. 19	9'. 07	8'. 92	*8'. 60	8'. 76	9'. 32	9'. 73	9'. 75	9'. 53

HORIZONTAL FORCE ($0.38 \dots +$ the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	178	178	178	178	179	179	185	194	205	214	*218	214
2	193	185	183	180	181	182	189	201	210	222	*224	215
3	181	187	189	189	190	194	197	203	213	223	*224	219
4	182	182	182	184	186	187	192	201	211	223	*225	219
5	184	183	183	*179	*179	180	185	193	203	211	*221	*221
6	188	187	186	189	191	190	188	192	209	218	*221	215
7	185	187	184	183	*182	183	191	200	210	*218	217	211
8	187	184	184	185	183	182	184	189	200	210	*213	210
9	175	175	176	176	178	179	187	194	207	213	220	*222
10	178	183	184	184	180	180	182	188	202	205	208	207
11	183	182	181	183	181	*180	184	189	200	208	*212	208
12	192	189	196	188	197	195	195	205	217	226	*232	220
13	190	192	193	190	191	192	200	214	222	*226	220	211
14	191	189	186	*185	189	192	200	207	217	221	*226	222
15	*192	194	195	198	199	204	209	216	227	*234	232	224
16	204	201	195	195	194	195	202	210	228	238	*242	230
17	194	193	191	190	*189	191	196	208	222	235	*238	235
18	203	201	203	198	*197	*197	201	210	225	233	*234	232
19	*200	*200	*200	201	202	201	208	216	227	237	*246	240
20	200	197	197	198	198	202	204	213	220	232	*237	227
21	196	195	196	197	197	197	201	208	220	230	*232	223
22	*192	196	198	197	198	198	201	203	214	225	*230	227
23	206	206	203	205	199	190	196	199	207	207	205	*208
24	*175	181	186	189	189	184	190	197	205	214	*219	214
25	184	188	187	186	186	184	186	194	205	*214	212	208
26	185	*183	*183	185	187	189	197	206	215	224	*228	219
27	192	196	196	196	194	198	201	209	215	*221	219	212
28	192	191	189	189	190	194	194	202	203	*207	206	200
29	*185	189	187	189	192	187	193	200	209	220	*222	215
30	191	190	190	193	192	195	201	209	220	*231	230	226
31	*191	195	194	198	199	201	204	208	216	229	*236	235
Mean	189	190	190	190	190	190	195	203	213	222	*224	219

MAGNETIC OBSERVATIONS FOR DECEMBER, 1902.

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EASTERLY DECLINATION ($0^{\circ} 40'$ + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
8'.84	*8'.56	8'.70	9'.41	9'.55	*9'.70	9'.55	9'.41	9'.41	9.27	9'.13	8'.99	9'.07
8.70	9.41	9.70	*9.98	9.84	9.70	9.55	9.55	9.41	9.27	9.13	9.13	9.13
9.29	9.43	9.86	*10.00	9.86	9.57	9.43	9.43	9.29	9.29	9.15	9.15	9.22
10.01	9.73	9.58	9.44	9.30	9.30	9.30	9.30	9.16	9.16	9.02	9.02	9.25
9.45	9.17	9.45	9.45	*9.74	9.59	9.45	9.45	9.31	9.31	9.31	9.31	9.09
8.61	8.75	9.04	9.60	9.60	9.46	9.32	9.32	9.18	9.18	9.18	9.18	9.14
10.32	9.90	9.61	9.61	9.90	9.76	9.61	9.61	9.47	9.33	9.19	9.05	9.73
9.77	9.62	9.48	9.48	9.48	9.34	9.20	9.20	9.20	9.20	9.06	8.91	9.25
*10.06	9.78	9.63	9.78	9.63	9.49	9.49	9.35	9.35	9.07	8.92	8.92	9.25
8.93	9.08	9.64	10.07	9.93	9.36	9.36	9.22	9.22	9.22	9.08	8.93	9.05
9.80	*9.97	*9.97	*9.97	*9.97	9.68	9.68	9.54	9.54	9.40	9.40	9.40	9.35
*10.41	9.84	9.69	9.84	9.98	9.84	9.69	9.69	9.55	9.55	9.55	9.55	9.55
9.68	9.99	*10.15	10.02	10.03	9.60	9.47	9.35	9.36	9.37	9.25	9.38	9.29
*10.54	10.40	10.26	10.40	10.26	10.11	9.97	9.83	9.83	9.83	9.83	9.83	9.79
9.90	9.62	9.76	9.62	9.90	9.62	9.48	9.62	9.48	9.33	9.33	9.19	9.50
*8.48	8.77	9.05	9.62	*10.04	9.62	9.48	9.62	9.33	9.19	9.19	9.05	9.20
9.15	9.58	9.72	10.01	*10.29	9.72	9.72	9.58	9.44	9.29	9.15	9.15	9.29
9.61	9.75	10.04	*10.32	9.75	9.90	9.61	9.32	9.32	9.32	9.32	9.32	9.40
9.07	9.07	9.21	9.64	*10.50	10.21	10.07	9.78	9.64	9.64	9.50	9.50	9.35
9.53	9.53	9.38	9.53	9.81	9.67	9.53	9.38	9.38	9.38	9.24	9.24	9.45
9.41	9.27	9.56	9.84	*10.13	9.84	9.70	9.70	9.56	9.41	9.41	9.27	9.45
*8.16	8.87	9.30	10.16	*10.44	9.87	9.73	9.59	9.59	9.44	9.44	9.44	9.43
9.19	9.47	9.90	*10.62	*10.62	10.47	9.90	9.90	9.62	9.62	9.33	9.33	9.44
*8.50	9.22	9.93	*10.08	9.79	*10.08	9.79	9.65	9.65	9.50	9.36	9.36	9.41
8.68	*8.53	8.96	9.53	9.82	9.53	9.68	9.82	9.82	9.82	9.68	9.53	9.53
9.99	9.42	9.13	9.56	9.85	9.85	9.99	9.85	9.71	9.56	9.56	9.56	9.63
9.45	*8.59	8.88	9.59	9.88	9.88	9.74	9.74	9.59	9.45	9.45	9.45	9.56
10.34	10.20	9.91	10.20	10.05	10.05	9.91	9.91	9.91	9.77	9.62	9.48	9.73
10.08	9.51	9.37	9.37	9.51	9.65	9.65	9.65	9.51	9.51	9.51	9.51	9.54
10.68	10.11	9.83	10.11	10.26	9.97	9.97	9.68	9.68	9.68	9.54	9.54	9.81
*8.71	9.00	9.57	10.14	*10.86	10.43	10.14	10.14	10.14	10.00	9.86	9.71	9.63
9'.46	9'.42	9'.56	9'.84	*9'.95	9'.77	9'.65	9'.59	9'.50	9'.43	9'.34	9'.30	9'.40

HORIZONTAL FORCE (0.38 ... + the numbers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
206	196	193	190	187	184	186	178	174	*172	178	176	188
215	201	187	188	182	179	179	177	*174	*174	178	178	191
210	201	193	191	190	188	186	184	183	180	*179	180	196
210	200	188	184	180	181	180	*179	181	182	183	183	192
214	204	196	191	189	186	185	183	184	186	184	184	192
212	203	199	192	186	183	182	181	*180	*180	181	184	193
204	197	190	183	183	184	185	185	186	185	186	185	192
209	201	187	182	182	181	179	178	178	177	*176	*176	188
218	221	214	208	206	196	192	191	191	187	184	*174	195
*210	204	199	191	184	180	181	178	*176	181	183	184	189
202	195	194	192	192	190	190	192	197	195	196	194	193
210	200	188	182	*176	179	178	*176	177	180	181	180	194
208	208	205	201	195	185	*171	172	177	179	179	181	196
213	201	194	190	192	191	193	192	191	193	191	193	198
218	216	212	210	207	209	208	205	205	206	204	202	209
225	218	216	213	209	204	198	194	200	199	196	*191	208
224	220	213	206	202	204	203	204	203	202	201	203	207
224	220	215	212	208	203	201	200	200	200	198	198	209
232	232	225	219	222	222	213	204	205	203	*200	201	215
222	220	211	208	204	201	200	198	195	193	*192	*192	207
221	214	208	204	203	198	198	196	195	193	*191	*191	204
222	219	217	212	207	208	202	199	201	198	198	200	207
202	192	192	189	188	182	179	*168	179	169	170	175	192
205	197	194	194	189	191	190	188	184	182	182	188	193
207	201	195	190	186	182	*180	183	182	184	184	184	191
213	206	200	192	198	192	192	186	*183	188	*183	187	197
214	210	208	199	194	192	191	189	192	*188	189	189	200
197	194	194	192	189	189	188	*182	187	188	189	186	193
210	205	199	192	192	191	191	191	191	192	192	193	197
216	207	197	190	190	190	*185	*185	186	186	186	189	198
221	217	215	211	213	208	204	203	204	204	203	201	209
213	207	201	197	194	192	190	*188	*188	*188	*188	*188	193

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

VERTICAL FORCE (0.1 . . . + the numbers in the table).

Day.	1 a.	2 a.	3 a.	4 a.	5 a.	6 a.	7 a.	8 a.	9 a.	10 a.	11 a.	Noon.
1	1027	1025	1027	1025	1021	1019	1018	1018	1018	1016	1016	*1014
2	1033	1031	1031	1029	1029	1027	1025	1025	*1023	*1023	1025	1029
3	1040	1040	1038	1038	1036	1035	1033	1033	1033	1033	1033	*1031
4	1047	1045	1044	1042	1042	1040	1038	1035	1034	1034	*1033	1035
5	1041	1039	1041	1039	1037	1037	1035	1033	1033	1031	*1029	1031
6	1045	1045	1043	1041	1039	1035	1035	1033	1031	1031	1030	*1027
7	*1039	*1039	1035	1031	1029	1028	1024	1022	1020	1018	*1016	*1016
8	1032	1030	1030	1028	1028	1026	1024	1024	1024	1022	1022	*1019
9	1031	1029	1027	1025	1025	1025	1025	1023	1023	1023	*1021	1023
10	1034	1034	1032	1028	1026	1020	1018	1016	1015	*1013	*1013	1015
11	*1035	1033	1031	1030	1026	1024	1021	1019	1018	1016	*1015	1016
12	1025	1023	1028	1026	1028	1028	1026	1024	1025	1021	*1020	1022
13	*1038	1034	1037	1032	1030	1024	1021	1017	1016	1011	*1010	1012
14	1026	1023	1023	1022	1022	1019	1016	1016	1016	1009	*1002	1009
15	1024	1024	1024	1024	1023	1021	1016	1015	1014	1002	*0998	1001
16	*1028	1027	1024	1022	1020	1016	1013	1008	1007	1006	1001	*0997
17	1020	1019	1020	1020	1019	1016	1011	1010	1007	1005	1004	*1003
18	*1022	1021	1019	1018	1013	1009	1006	1005	1004	0993	*0987	0989
19	1012	1011	1011	1010	1010	1007	1004	1002	0997	0997	*0995	0996
20	1015	1012	1012	1012	1011	1010	1009	1009	1008	1004	0997	*0993
21	*1017	1016	1015	1015	1013	1012	1009	1010	1015	1010	*0993	*0993
22	1013	1012	1009	1008	1004	1003	1002	1002	1002	1004	0996	*0991
23	1012	1010	1008	1006	1004	0999	*0998	1002	1009	1008	1006	1001
24	1012	1011	1010	1010	1005	1004	1003	1002	0999	0997	*0992	*0992
25	*1010	*1010	1007	1005	1004	0997	0995	0995	0995	0990	0974	*0969
26	1005	1004	1004	1001	1001	1000	*0999	1004	1013	1013	1006	1000
27	1013	1012	1011	1010	1010	1010	1005	1010	1010	1010	1000	0993
28	1009	1009	1007	1006	1005	1002	0999	1002	1008	1008	1000	*0996
29	1008	1009	1008	1008	1009	1005	1003	1008	1010	1009	1005	*1000
30	1012	1012	1010	1010	1008	1007	1006	1005	1009	1006	1000	0997
31	1016	1019	1016	1016	1016	1016	1014	1015	1010	1004	1001	*0994
Mean	1024	1023	1022	1021	1019	1017	1015	1014	1014	1012	1008	*1007

EXTREME VALUES.

Easterly declination.						Horizontal force.				
Day.	Maxima.	Hour.	Minima.	Hour.	Daily range.	Maxima.	Hour.	Minima.	Hour.	Daily range.
1	0 49.84	6.48 p.	0 48.42	2.24 p.	1.42	0.38218	11 a.	0.38172	10 p.	0.00046
2	49.98	4 p.	48.42	6 and 7 a.	1.56	221	11 a.	169	10.46 p.	55
3	50.14	4.16 p.	48.44	6.28 a.	1.70	227	10.27 a.	177	11.15 p.	50
4	50.44	12 m.d.	48.45	7 a.	1.99	226	10.20 a.	179	8 p.	47
5	49.74	5 p.	48.03	7 a.	1.71	221	11 a. and 12 m.d.	179	4 and 5 a.	42
6	49.75	11 a.	48.47	7 a.	1.28	223	10.33 a.	179	9.07 p.	44
7	50.75	0.14 p.	48.48	6.31 a.	2.27	220	10.42 a.	180	4.31 a.	40
8	50.19	11.15 a.	48.63	7 and 8 a.	1.56	214	11.15 a.	175	11.09 p.	39
9	50.20	1.49 p.	48.21	7 a.	1.99	224	11.31 a.	172	11.52 p.	52
10	50.07	4 p.	48.22	8 a.	1.85	212	0.21 p.	169	0.19 a.	43
11	49.97	2 to 5 p.	48.65	7 and 8 a.	1.32	212	11 a.	180	6 a.	32
12	50.70	1.22 p.	48.55	7.45 a.	2.15	233	10.55 a.	174	5.09 p.	59
13	50.15	3 p.	48.30	8 and 11 a.	1.85	232	9.51 a.	171	7 p.	61
14	50.51	1 p.	48.83	7 and 8 a.	1.71	226	11 a.	182	0.27 a.	44
15	50.40	12 m.d.	48.78	7 a.	1.62	234	10 a.	192	1 a.	42
16	50.04	5 p.	48.48	7 a. and 1 p.	1.56	242	11 a.	191	12 m.n.	51
17	50.29	5 p.	47.86	8 a.	2.43	240	10.43 a.	188	5.09 a.	52
18	50.32	4 p.	48.75	7 a.	1.57	236	10.42 a.	197	5 and 6 a.	39
19	50.64	5.04 p.	48.21	8 a.	2.43	247	10.52 a.	199	0.02 a.	48
20	50.38	10 a.	48.95	11.54 a.	1.43	237	11 a.	190	11.30 p.	47
21	50.13	10 a. and 5 p.	48.98	8 a.	1.15	233	10.20 a.	191	11 p. and 12 m.n.	42
22	50.44	5 p.	48.16	1 p.	2.28	230	11 a.	192	1 a.	38
23	50.76	5.25 p.	48.04	7 a.	2.72	209	0.20 p.	165	8.26 p.	44
24	50.22	5.51 p.	48.36	1.16 p.	1.86	220	10.44 a.	172	0.55 a.	48
25	51.11	10.18 a.	48.53	2 p.	2.58	214	10 a.	180	7 p.	34
26	50.99	11 a.	48.42	6.54 a.	2.57	228	11 a.	183	various.	45
27	50.88	10 a.	48.45	2.22 p.	2.43	223	10.23 a.	186	9.44 p.	37
28	51.05	9.22 a.	48.05	7.06 a.	3.00	210	10.25 a.	181	8.08 p.	29
29	50.37	12 m.d.	48.66	7.14 a.	1.71	223	11.11 a.	185	1 a.	38
30	51.11	0.29 p.	48.83	7 a.	2.28	233	10.11 a.	184	7.17 p.	49
31	50.86	5 p.	48.71	7 a. and 1 p.	2.15	238	11.24 a.	191	1 a.	47
Mean	50'.40		48'.46		1'.94	226		181		45

MAGNETIC OBSERVATIONS FOR DECEMBER, 1902.

51

VERTICAL FORCE (0.1 . . . + the nufibers in the table).

1 p.	2 p.	3 p.	4 p.	5 p.	6 p.	7 p.	8 p.	9 p.	10 p.	11 p.	Mid't.	Mean.
1019	1025	1029	1033	*1035	1033	1033	1033	1033	1033	*1035	1033	1026
1031	1035	1036	1040	1040	1040	*1042	*1042	*1042	*1042	1040	1040	1033
1035	1038	1042	1048	*1052	*1052	*1052	1050	1050	1048	1048	1046	1041
1037	1040	1043	1046	1048	*1049	*1049	1046	1044	1045	1043	1042	1042
1033	1037	1045	1047	1052	1052	*1054	1052	1052	1050	1048	1047	1041
1033	1039	1045	*1048	1046	1046	1046	1045	1043	1043	1043	1041	1040
1018	1022	1024	1028	1029	1031	1035	1035	1035	1035	1035	1035	1028
1021	1022	1026	1030	1034	1038	1038	1038	*1040	1038	1036	1036	1029
1025	1029	1035	1038	1038	*1042	*1042	1040	*1042	1040	1038	1037	1031
1020	1026	1032	1032	1034	1035	1037	*1039	*1039	*1039	*1039	1037	1028
1020	1024	1027	1030	1030	1027	1024	1023	1018	1018	1020	1020	1024
1025	1029	1032	1036	*1039	*1039	*1039	*1039	1038	1034	1034	1033	1030
1021	1026	1031	1034	1037	1037	1035	1033	1031	1030	1028	1028	1027
1017	1022	1025	*1027	1026	1026	1026	1026	*1027	*1027	1025	1025	1021
1006	1018	1026	1030	*1032	*1032	*1032	1031	1031	1031	1029	1029	1021
1004	1013	1019	1023	1027	1025	1024	1023	1023	1022	1022	1021	1017
1007	1020	1024	1031	*1035	1033	1030	1030	1029	1028	1026	1026	1020
0996	1006	1013	1016	1019	1021	1020	1019	1019	1019	1017	1017	1011
1001	1010	1016	1022	*1023	1019	1018	1018	1019	1017	1016	1014	1010
1003	1007	1011	1020	*1024	1021	1020	1020	1019	1020	1020	1018	1012
0998	1003	1008	1012	*1017	1015	1015	1015	1016	1015	1013	1012	1011
0998	1005	1010	1016	*1019	1017	1016	1016	1016	1013	1013	1012	1008
1001	1004	1011	1016	1017	1016	1016	1017	*1019	1014	1013	1013	1009
0999	1009	1014	1017	1014	*1018	1015	1014	1015	1013	1013	1014	1008
0980	0986	0997	1003	1005	1005	1007	1004	1004	1004	1004	1004	0998
*0999	1000	1006	1012	*1015	1014	1013	1012	1012	1012	1012	1013	1007
*0990	0991	1003	1011	1014	1014	*1015	1014	1013	1011	1011	1010	1008
1001	1008	1011	*1013	1011	1011	1009	1008	1009	1008	1008	1006	1006
1001	1003	1007	1009	*1013	*1013	1010	1008	1009	1010	1010	1012	1008
*0995	1001	1005	1008	1013	1013	1012	1012	1013	1013	1014	*1015	1008
0999	1008	1019	1024	*1027	1025	1025	1025	1026	1025	1024	1024	1016
1011	1016	1022	1026	*1028	*1028	1027	1027	1027	1026	1025	1025	1020

EXTREME VALUES.

Vertical force.					Northerly dip.					
Maxima.	Hour.	Minima.	Hour.	Daily range.	Daily mean.	Maxima.	Hour.	Minima.	Hour.	Daily range.
0.11035	5 and 11 p.	0.11014	12 m.d.	0.00021	16 06.30	16 07.29	11 p.	16 04.68	12 m.d.	2.61
1043	10.36 p.	1023	9 and 10 a.	20	6.81	8.00	10.46 p.	5.23	10 a.	2.77
1052	5 to 7 p.	1031	12 m.d.	21	7.35	8.51	7 p.	5.95	10.27 a.	2.56
1049	6 and 7 p.	1033	11 a.	16	7.53	8.40	7 p.	5.90	11 a.	2.41
1054	7 p.	1029	10 and 11 a.	25	7.45	8.70	7 p.	5.76	11 a.	2.94
1048	4 p.	1027	12 m.d.	21	7.34	8.03	4 p.	5.73	12 m.d.	2.30
1039	1 and 2 a.	1016	11 a. and 12 m.d.	23	6.37	7.45	1 a.	4.77	11 a.	2.68
1040	9 p.	1019	12 m.d.	21	6.55	7.70	9 p.	5.19	12 m.d.	2.51
1044	5.52 p.	1021	11 a.	23	6.55	7.60	11.52 p.	5.10	11.31 a.	2.50
1039	8 to 11 p.	1013	10 and 11 a.	26	6.44	7.67	9 p.	4.74	11 a.	2.93
1035	1 a.	1015	11 a.	20	6.01	7.17	1 a.	4.81	11 a.	2.36
1039	5 to 8 p.	1020	11 a.	19	6.49	7.92	5.09 p.	4.72	10.55 a.	3.20
1038	1 a.	1010	11 a.	28	6.19	7.46	7 p.	4.14	10 a.	3.32
1027	4, 9 and 10 p.	1002	11 a.	25	5.65	6.53	0.27 a.	3.40	11 a.	3.13
1032	5 to 7 p.	0998	11 a.	34	5.38	6.34	5 p.	2.92	11 a.	3.42
1028	1 a.	0997	12 m.d.	31	5.07	6.08	1 a.	2.88	12 m.d.	3.20
1035	5 p.	1000	0.18 p.	35	5.35	6.71	5 p.	3.08	0.18 p.	3.63
1022	1 a.	0986	11.14 a.	36	4.55	5.61	1 a.	1.90	11.14 a.	3.71
1023	5 p.	0993	11.15 a.	30	4.32	5.24	5 p.	2.33	11 a.	2.91
1024	5 p.	0993	12 m.d.	31	4.68	5.70	11 p.	2.62	12 m.d.	3.08
1017	1 a. and 5 p.	0991	11.30 a.	26	4.67	5.36	1 a.	2.46	11.30 a.	2.90
1019	5 p.	0991	12 m.d.	28	4.35	5.26	5 p.	2.46	12 m.d.	2.80
1020	8.53 p.	0998	7 a.	22	4.79	6.19	8.26 p.	3.72	0.20 p.	2.47
1019	5.52 p.	0991	11.52 a.	28	4.68	5.56	6 p.	2.70	11.52 a.	2.86
1012	0.12 a.	0969	12 m.d.	43	3.90	5.09	0.12 a.	1.08	12 m.d.	4.01
1015	5 p.	0999	7 a. and 1 p.	16	4.50	5.25	9 and 11 p.	3.40	12 m.d.	1.85
1015	7 p.	0990	1 p.	25	4.52	5.32	7 p.	2.68	1 p.	2.64
1014	4.29 p.	0996	12 m.d.	18	4.52	5.25	4.29 p.	3.52	12 m.d.	1.73
1013	5 and 6 p.	1000	12 m.d.	13	4.59	5.15	6 p.	3.49	12 m.d.	1.66
1015	12 m.n.	0995	1 p.	20	4.57	5.36	12 m.n.	2.98	12 m.d.	2.38
1027	5 p.	0994	12 m.d.	33	4.97	5.92	9 p.	2.52	12 m.d.	3.40
1030		1005		25	5.56	6.57		3.77		2.80

REPORT OF THE DIRECTOR OF THE PHILIPPINE WEATHER BUREAU.

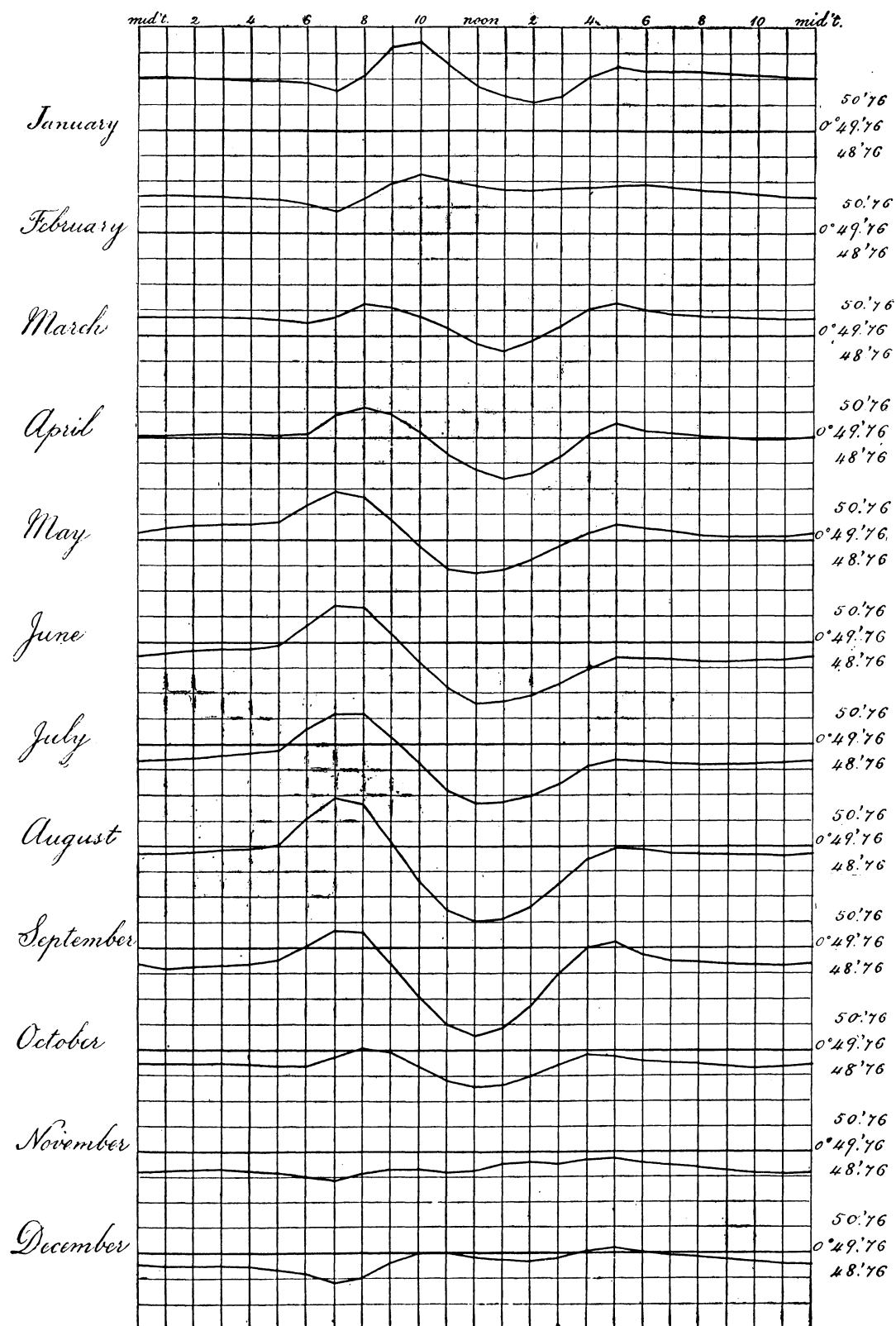
HOURLY MEANS IN THE YEAR 1902.

Day.	Easterly declination.			Northerly dip.	Horizontal force (C. G. S.).	Vertical force (C. G. S.).	Total intensity (C. G. S.).
	April-September.	October-March.	Year.				
1 a. m.	0 49.49	0 50.15	0 49.82	16 8.34	0.38174	0.11047	0.39741
2 a. m.	0 49.57	0 50.16	0 49.87	16 8.27	0.38175	0.11046	0.39741
3 a. m.	0 49.63	0 50.16	0 49.89	16 8.19	0.38176	0.11045	0.39741
4 a. m.	0 49.65	0 50.11	0 49.88	16 8.11	0.38175	0.11044	0.39741
5 a. m.	0 49.74	0 50.05	0 49.89	16 8.05	0.38175	0.11043	0.39740
6 a. m.	0 50.41	0 49.92	0 50.17	16 7.97	0.38176	0.11043	0.39741
7 a. m.	0 51.09	0 49.85	0 50.47	16 7.76	0.38180	0.11041	0.39745
8 a. m.	0 51.02	0 50.24	0 50.63	16 7.28	0.38188	0.11038	0.39752
9 a. m.	0 50.06	0 50.61	0 50.34	16 6.55	0.38201	0.11033	0.39762
10 a. m.	0 48.96	0 50.62	0 49.79	16 5.96	0.38211	0.11029	0.39770
11 a. m.	0 47.97	0 50.24	0 49.11	16 5.60	0.38215	0.11026	0.39774
Noon	0 47.49	0 49.89	0 48.69	16 5.71	0.38213	0.11026	0.39772
1 p. m.	0 47.54	0 49.81	0 48.67	16 6.22	0.38206	0.11030	0.39766
2 p. m.	0 47.93	0 49.86	0 48.91	16 6.89	0.38198	0.11036	0.39760
3 p. m.	0 48.66	0 50.12	0 49.39	16 7.59	0.38190	0.11042	0.39754
4 p. m.	0 49.44	0 50.50	0 49.97	16 8.12	0.38183	0.11046	0.39749
5 p. m.	0 49.78	0 50.63	0 50.20	16 8.36	0.38178	0.11048	0.39745
6 p. m.	0 49.59	0 50.49	0 50.04	16 8.37	0.38176	0.11047	0.39742
7 p. m.	0 49.46	0 50.40	0 49.93	16 8.44	0.38174	0.11048	0.39741
8 p. m.	0 49.39	0 50.34	0 49.86	16 8.45	0.38173	0.11048	0.39740
9 p. m.	0 49.35	0 50.25	0 49.80	16 8.46	0.38173	0.11048	0.39740
10 p. m.	0 49.34	0 50.17	0 49.76	16 8.44	0.38173	0.11048	0.39740
11 p. m.	0 49.37	0 50.13	0 49.75	16 8.42	0.38173	0.11047	0.39740
Midnight	0 49.45	0 50.14	0 49.79	16 8.40	0.38173	0.11047	0.39740
Year	0 49.31	0 50.20	0 49.76	16 7.65	0.38185	0.11041	0.39749

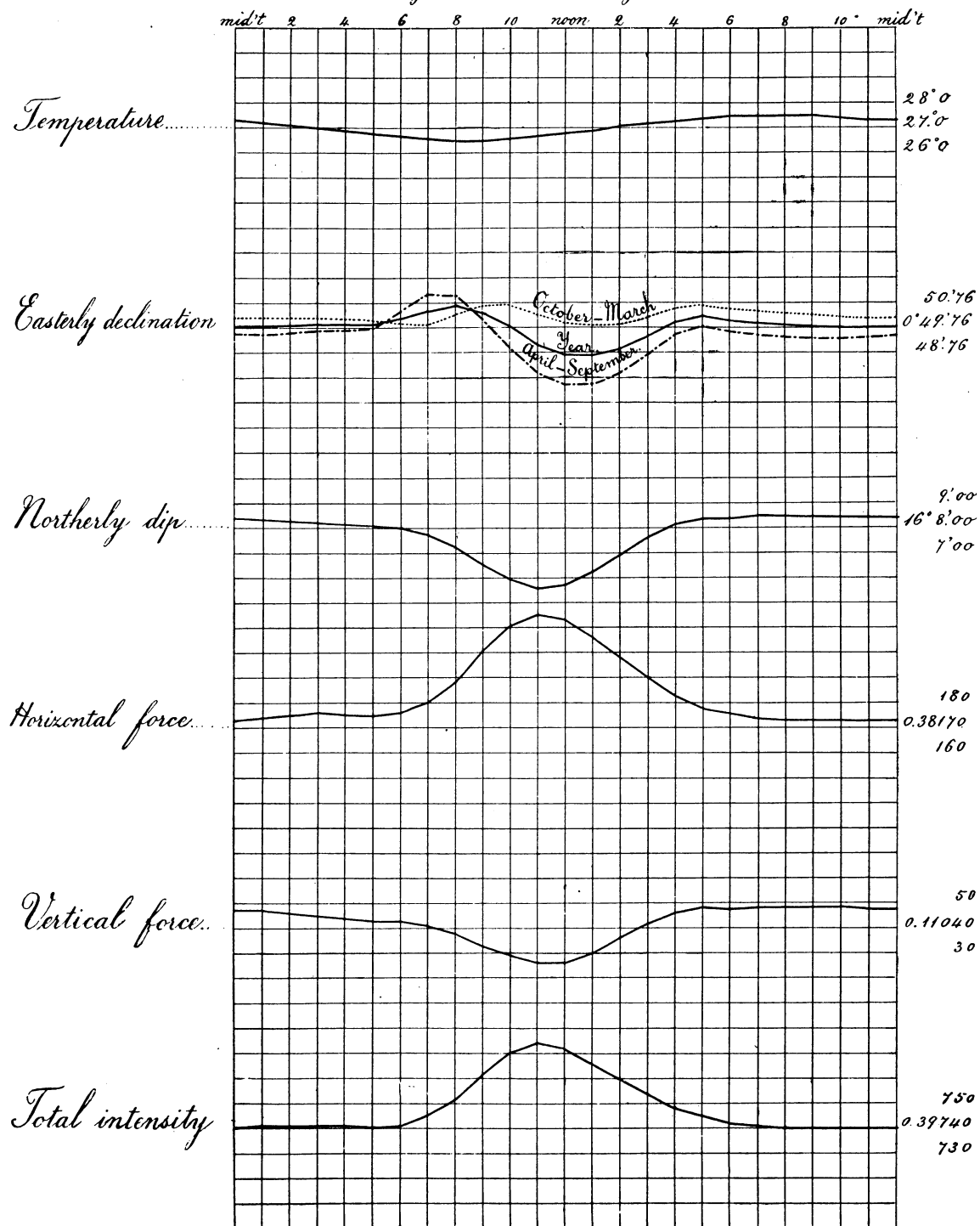
MONTHLY AND YEARLY MEANS IN THE YEAR 1902.

Month.	Easterly declination.	Northerly dip.	Horizontal force (C. G. S.).	Vertical force (C. G. S.).	X.	+Y.	Total intensity (C. G. S.).
January	0 51.85	16 8.07	0.38104	0.11023	0.38100	0.00575	0.39666
February	0 51.34	16 7.75	0.38131	0.11027	0.38127	0.00569	0.39693
March	0 50.39	16 11.20	0.38174	0.11081	0.38170	0.00560	0.39750
April	0 49.73	16 12.58	0.38172	0.11097	0.38168	0.00552	0.39752
May	0 50.03	16 10.47	0.38184	0.11075	0.38180	0.00556	0.39758
June	0 49.13	16 5.68	0.38224	0.11029	0.38220	0.00546	0.39783
July	0 49.07	16 5.51	0.38222	0.11026	0.38218	0.00546	0.39781
August	0 49.25	16 6.51	0.38206	0.11034	0.38202	0.00547	0.39767
September	0 48.67	16 5.66	0.38197	0.11021	0.38193	0.00541	0.39755
October	0 49.15	16 6.44	0.38203	0.11032	0.38199	0.00546	0.39764
November	0 49.07	16 6.37	0.38203	0.11031	0.38199	0.00545	0.39764
December	0 49.40	16 5.56	0.38198	0.11020	0.38194	0.00549	0.39756
Year	0 49.76	16 7.65	0.38185	0.11041	0.38181	0.00553	0.39749

Easterly Declination.



Hourly means in the year 1902.



PART V.

METEOROLOGICAL RESULTS OF THE STATIONS, 1902.

INTRODUCTION.

In the present volume, forming Part V of the Report of the Director of the Philippine Weather Bureau for 1902, we publish the results of the meteorological observations made at the principal stations which during the year 1902 formed the meteorological service of the Philippines, established by Act 131 of the Philippine Commission, May 22, 1901.

On pages 52 to 60 of Part II the reader will find the particulars concerning the establishment and management of said branch stations and also the different instruments which form the equipment of the various classes. Hence only the following few remarks are made by way of introduction:

(1) The reports of the various observers are carefully examined and compared at the Central Office. Still we can not assume the full responsibility for the accuracy of observations made at the branch stations. Every meteorologist knows that in observations of this kind much must be left to the conscientiousness of the observer. Wherefore we subjoin the names of the observers primarily responsible for the accuracy of the observations published in this part of the First Annual Report of the Philippine Weather Bureau:

Town.	Province.	Island.	North latitude.	East longitude.	Elevation above sea level.	Observer.	Class.
			° ' "	° ' "	Meters.		
Aparri -----	Cagayán -----	Luzón -----	18 22	121 34	3.50	Manuel Delgado -----	I
Candón -----	Ilocos Sur -----	do -----	17 12	120 26	6.00	Luis Quismorio -----	III
San Fernando -----	Unión -----	do -----	16 37	120 19	12.00	Ovidio Centeno -----	III
Baguio -----	Benguet -----	do -----	16 35	120 43	1,456.00	Benito Razón -----	I
Dagupan -----	Pangasinán -----	do -----	16 04	120 19	4.70	Toribio Jovellanos -----	I
Tarlac -----	Tarlac -----	do -----	15 31	120 35	350.00	José M. Sison -----	III
San Isidro -----	Nueva Ecija -----	do -----	15 22	120 53	20.00	Carlos Punsalan -----	II
Iba -----	Zambales -----	do -----	15 21	119 57	4.20	Benito Magcauas -----	III
Arayat -----	Pampanga -----	do -----	15 08	120 46	10.00	Isidoro Yuson -----	III
Corregidor -----	-----	Corregidor -----	14 24	120 38	194.00	Mariano Atienza -----	III
Atimonan -----	Tayabas -----	Luzón -----	14 02	121 53	7.00	Pablo García -----	I
Nueva Cáceres -----	Ambos Camarines.	do -----	13 38	123 12	8.00	Eduardo Ontengco -----	III
Legaspi -----	Albay -----	do -----	13 09	123 44	4.30	Bernardino Costa -----	I
Cápiz -----	Cápiz -----	Panay -----	11 36	122 42	6.00	José E. de León -----	II
Ormoc -----	Ormoc -----	Leyte -----	11 01	124 33	4.50	Pedro Baltasar -----	I
San José Buenavista -----	Antique -----	Panay -----	10 45	121 55	4.00	Macario Reyes -----	III
Tuburan -----	Tuburan -----	Cebu -----	10 44	123 48	8.00	Agapito Borja -----	III
Iloilo -----	Iloilo -----	Panay -----	10 42	122 35	6.00	Domingo Torres -----	I
Cebu -----	Cebu -----	Cebu -----	10 18	123 54	3.00	Domingo Angeles -----	I
Surigao -----	Surigao -----	Mindanao -----	9 47	125 29	4.00	Ignacio L. Catelo -----	II
Tagbilaran -----	Tagbilaran -----	Bohol -----	9 38	123 53	21.87	Fernando Rocha -----	II
Balingasag -----	Misamis -----	Mindanao -----	8 45	124 44	5.00	Mariano Capili -----	III
Dapitan -----	do -----	do -----	8 38	123 24	6.00	Severino Hamac -----	III
Caraga -----	Surigao -----	do -----	7 30	126 32	28.00	Juan Lugod -----	III
Dávao -----	Dávao -----	do -----	7 01	125 35	3.00	Lamberto García -----	III
Joló -----	Joló -----	Joló -----	6 03	120 59	7.00	Román Aquino -----	III

(2) Owing to the fact that the installation of the stations was not completed during the year 1902, only the stations of Class I and Class II (which were the first to be erected) have a complete record, while at the majority of the stations of Class III and Class IV only the observations during the second half of the year are sufficiently complete to warrant publication.

(3) As in the result of the stations of Class III and Class IV some elements do not appear which figure in the report of the stations of Class I and Class II, it has seemed advisable to make two groups,

one comprising the latter, the other the former, the stations being in both groups arranged to decreasing latitude. The only three stations of Class III whose observations are complete also for the first six months have been included in group 1.

(4) It must be remembered that the results given are the means of six daily observations in the case of stations of Class I and Class II, but of only two such observations as regards stations of Class III and Class IV. The hours of observation at the former are 2 a. m., 6 a. m., 10 a. m., 2 p. m., 6 p. m., 10 p. m.; at the latter 6 a. m. and 2 p. m. The time used is that of the one hundred and twentieth meridian east of Greenwich (insular time).

The extreme values of the various meteorological elements found in the columns "maximum" and "minimum" are, of course, the absolute maxima and minima, respectively, of the month and not the means of the daily maxima and minima.

(5) The barometer heights are reduced to sea level and 0° C., but no correction has been applied to eliminate the effect of gravity depending on the latitude of the places of observation.

Observations made at the principal

JANUARY.

Station.	Class.	Position.		Elevation above sea level.	Atmospheric pressure. ¹					Temperature.				
		North latitude.	East longitude.		Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.
		° ' "	° ' "	Meters.	Mm.	Mm.		Mm.		°C.	°C.		°C.	
Aparri	I	18 22	121 34	3.50	762.34	767.20	24	756.30	21	22.8	31.2	31	16.7	11
San Fernando	III	16 37	120 19	7.00	58.95	61.95	2	54.05	23	26.7	31.4	31	21.9	11
Baguio	I	16 35	120 43	1,456.00	58.66	61.76	25	55.81	22	17.1	24.0	2	9.2	17
Dagupan	I	16 04	120 19	4.70	59.77	63.27	25	55.43	21	25.5	34.4	31	20.0	12
San Isidro	II	15 22	120 53	20.00	61.06	64.55	25	56.10	21	25.5	33.4	22	19.5	10
Iba	III	15 21	119 57	4.20	58.35	60.40	25	55.90	21	27.0	31.0	26	22.5	1
Arayat	III	15 08	120 46	10.00	59.13	60.35	25	56.35	21	26.7	31.1	31	21.7	26
Atimonan	I	14 02	121 53	7.00	58.77	61.98	25	54.17	21	25.1	31.4	22	21.7	31
Legaspi	I	13 09	123 44	4.30	59.12	61.93	25	55.67	21	25.2	29.2	24	21.9	21
Capiz	II	11 36	122 42	6.00	59.23	62.06	25	56.21	21	26.2	32.5	30	21.8	11
Ormoc	I	11 01	124 33	4.50	58.51	61.40	30	53.20	5	25.1	32.2	30	19.9	3
Iloilo	I	10 42	122 35	6.00	58.86	61.90	30	55.10	20	25.4	35.5	21	21.0	5
Cebu	I	10 18	123 54	3.00	58.17	61.45	30	53.15	5	25.9	30.7	21	21.9	9
Surigao	II	9 47	125 29	4.00	58.16	60.86	25	53.44	4	25.9	29.7	22	22.2	22
Tagbilaran	II	9 38	123 53	21.87	58.07	60.63	30	55.30	4	27.1	31.8	22	22.2	20

FEBRUARY.

		° ' "	° ' "	Meters.	Mm.	Mm.		Mm.		°C.	°C.		°C.	
Aparri	I	18 22	121 34	3.50	765.97	770.44	14	758.80	1	21.5	27.0	1	16.5	D.
San Fernando	III	16 37	120 19	7.00	62.40	65.77	22	58.47	1	25.4	30.9	1	18.9	23
Baguio	I	16 35	120 43	1,456.00	60.96	64.51	16	58.26	28	15.2	23.1	1	6.0	18
Dagupan	I	16 04	120 19	4.70	63.31	66.87	23	58.30	1	24.3	33.0	14	16.4	20
San Isidro	II	15 22	120 53	20.00	63.29	66.34	6	56.95	28	24.2	34.3	2	16.0	16
Iba	III	15 21	119 57	4.20	62.20	64.40	23	59.30	1	25.9	31.0	2	20.0	20
Arayat	III	15 08	120 46	10.00	61.66	64.35	23	58.35	1	25.0	31.3	1	18.3	17
Atimonan	I	14 02	121 53	7.00	62.20	65.54	15	57.61	1	24.3	30.5	2	19.6	25
Legaspi	I	13 09	123 44	4.30	62.63	66.16	15	57.59	28	24.7	30.0	2	17.0	27
Capiz	II	11 36	122 42	6.00	62.84	66.15	23	58.68	28	25.2	31.5	13	20.3	26
Ormoc	I	11 01	124 33	4.50	62.11	65.42	23	57.70	1	24.0	32.7	3	16.3	24
Iloilo	I	10 42	122 35	6.00	62.97	66.40	23	58.20	1	24.3	30.6	1	18.6	22
Cebu	I	10 18	123 54	3.00	61.66	65.00	23	57.20	28	25.2	30.3	3	19.6	27
Surigao	II	9 47	125 29	4.00	60.05	64.42	14	56.79	1	23.8	28.9	2	16.3	24
Tagbilaran	II	9 38	123 53	21.87	61.49	64.59	14	57.44	28	26.0	34.1	3	18.7	27

MARCH.

		° ' "	° ' "	Meters.	Mm.	Mm.		Mm.		°C.	°C.		°C.	
Aparri	I	18 22	121 34	3.50	761.23	765.55	5	757.00	21	24.6	32.1	17	17.5	5
San Fernando	III	16 37	120 19	7.00	60.20	63.50	6	55.90	21	28.0	33.0	29	22.0	9
Baguio	I	16 35	120 43	1,456.00	58.72	61.13	6	55.73	21	18.3	27.5	31	8.6	9
Dagupan	I	16 04	120 19	4.70	60.10	63.84	6	56.59	21	26.8	36.2	15	19.7	9
San Isidro	II	15 22	120 53	20.00	59.72	64.00	6	54.30	21	27.4	36.8	18	19.2	9
Iba	III	15 21	119 57	4.20	59.80	61.40	D.	58.10	14	27.4	33.0	D.	21.0	16
Arayat	III	15 08	120 46	10.00	59.20	61.70	6	57.80	21	27.4	33.0	21	21.0	16
Atimonan	I	14 02	121 53	7.00	59.37	62.95	5	55.86	21	26.4	33.9	30	22.1	5
Legaspi	I	13 09	123 44	4.30	59.98	63.30	5	56.95	1	26.4	31.5	D.	21.6	23
Capiz	II	11 36	122 42	6.00	60.21	63.76	6	57.42	1	26.5	31.6	26	22.9	24
Ormoc	I	11 01	124 33	4.50	59.70	63.11	6	56.15	1	25.0	33.6	19	17.8	14
Iloilo	I	10 42	122 35	6.00	59.51	64.00	26	57.15	1	26.0	36.0	27	21.0	8
Cebu	I	10 18	123 54	3.00	59.27	62.60	26	55.40	1	26.5	31.2	31	21.5	8
Surigao	II	9 47	125 29	4.00	59.40	61.80	25	56.00	1	25.3	29.0	5	12.5	23
Tagbilaran	II	9 38	123 53	21.87	59.16	62.09	26	56.00	1	26.8	29.7	29	23.2	15

¹ Reduced to sea level and 0° C.

METEOROLOGICAL RESULTS OF THE STATIONS, 1902.

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meteorological stations during the year 1902.

JANUARY.

Relative humidity.					Vapor pressure.					Wind.				Clouds.		Rainfall.
Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Pre-vailing direction.	Mean force, 0-12.	Maximum— Direction.	Force, 0-12.	Pre-vailing form.	Pre-vailing direction.	
Per ct.	Per ct.		Per ct.		Mm.	Mm.		Mm.								
84.5	98.0	$\left\{ \begin{smallmatrix} 21 \\ 22 \end{smallmatrix} \right\}$	57.0	10	17.5	22.4	31	12.0	10	E.	1	ENE.	4	S.-Cu.	E.	Mm. 708.6
										W.	1	W.	2	A.-Cu.	E.	49.6
82.8	98.0	D.	50.0	10	12.0	15.3	2	8.3	8	SE.	2	E.	6	Cl.		63.4
70.0	97.0	$\left\{ \begin{smallmatrix} 3 \\ 10 \end{smallmatrix} \right\}$	30.0	10	16.8	22.4	22	11.7	15	SSE.	1	N. by W.	3	Cl.		22.4
77.9	97.0	$\left\{ \begin{smallmatrix} 1 \\ 25 \end{smallmatrix} \right\}$	54.0	25	18.7	23.7	21	14.7	12	NE.	1	NE.	3	S.-Cu.	SSE.	33.1
										E., N.	1	E.	2	A.-Cu.	NE.	
										ENE.	1	ENE.	5	S.-Cu.		37.8
84.3	99.0	$\left\{ \begin{smallmatrix} 20 \\ 21 \end{smallmatrix} \right\}$	61.0	4	20.0	24.3	2	15.5	10	NNE.	2	NNE.	4	Fr.-N.	NNE.	405.3
88.2	98.0	$\left\{ \begin{smallmatrix} 2 \\ 5 \end{smallmatrix} \right\}$	72.0	24	21.0	24.8	1	18.1	9	E.	2	E., NE.	4	Cu.	NE.	649.7
95.0	100.0	D.	83.0	29	23.9	29.4	1	20.0	15	NE.	1	NE.	5	N.	NE.	178.6
87.0	100.0	5	50.0	30	20.5	23.5	21	17.1	3	N.	1	SSE.	3	N.	E., NE.	618.6
86.3	100.0	D.	62.0	2	20.7	24.1	21	17.7	10	NNE.	2	N. by E.	4	S.-Cu.	NE.	149.3
82.0	97.0	11	61.0	2	20.2	23.3	19	11.7	11	NE.	1	NNE.	4	Cl.-S.	ESE.	128.8
93.5	99.0	D.	78.0	30	23.4	26.1	1	21.1	D.	NE.	1	NNE.	7	Fr.-N.	NE.	117.3
										N.	1	N.	5	S.-Cu.	E.	116.2

FEBRUARY.

Per ct.	Per ct.		Per ct.		Mm.	Mm.		Mm.								Mm.
79.2	97.0	13	40.0	22	15.0	21.9	1	11.2	22	ENE.	2	E.	4	Cu.	E.	124.7
										W.	1	N.	4	S.-Cu.	N.	
80.0	99.0	2	26.0	23	10.2	14.5	3	4.1	23	SE.	1	SSE.	3	Cu.	N.	1.8
65.0	91.0	2	26.0	23	14.6	21.3	1	9.6	20	SSE.	1	NW.	4	Cu.	E.	0.3
72.7	97.0	$\left\{ \begin{smallmatrix} 1 \\ 20 \end{smallmatrix} \right\}$	45.0	17	16.0	21.7	28	12.1	17	NNE.	1	NE.	3	S.-Cu.	ENE.	
										N.	1	E.	3	Cu.		5.6
										N.	1	E.	6	Cu.	E.	0.5
77.3	98.0	28	53.0	22	17.4	22.7	28	13.6	$\left\{ \begin{smallmatrix} 22 \\ 23 \end{smallmatrix} \right\}$	NE.	1	ENE.	5	Cu.	NE.	89.8
75.8	96.0	11	55.0	D.	17.5	21.6	D.	12.8	23	E., ENE.	1	E.	4	Cl.-S.	S.	475.7
86.0	98.0	D.	76.0	D.	21.4	27.4	1	16.7	26	NE., NNE.	1	NW.	5	S.-Cu.	N.	58.9
78.0	98.0	28	43.0	26	17.3	22.8	2	12.7	$\left\{ \begin{smallmatrix} 15 \\ 27 \end{smallmatrix} \right\}$	N., NNW.	1	N. by W.	4	Cu.-N.	NE.	74.0
78.0	97.0	16	51.0	10	17.5	21.5	2	12.8	21	N., NNE.	1	NE.	4	S.-Cu.	NE.	7.4
70.9	96.0	28	50.0	23	16.9	22.7	2	13.1	21	NE.	1	NE.	4	Cl.-S.	N.	47.5
88.3	99.0	1	65.0	15	21.2	24.9	2	15.0	24	NNW.	1	NNW.	7	Fr.-N.	NE.	540.9
										N.	1	N.	6	S.-Cu.	NE.	329.2

MARCH.

Per ct.	Per ct.		Per ct.		Mm.	Mm.		Mm.								Mm.
83.0	100.0	10	55.0	17	19.2	22.4	27	14.1	5	E., ENE.	1	ENE.	3	S.-Cu.	SE.	7.4
										W.	1	W.	3	A.-Cu.	W.	
79.0	98.0	$\left\{ \begin{smallmatrix} 16 \\ 27 \end{smallmatrix} \right\}$	35.0	$\left\{ \begin{smallmatrix} 18 \\ 31 \end{smallmatrix} \right\}$	12.2	20.0	23	6.9	31	SW., SSW.	1	W., by SW.	3	Cu.	W.	29.0
69.0	96.0	20	27.0	31	17.9	23.0	2	12.4	5	S., SSE.	1	NNW.	3	Cu.	SE.	7.6
67.0	94.0	10	36.0	$\left\{ \begin{smallmatrix} 17 \\ 19 \end{smallmatrix} \right\}$	17.6	22.2	15	13.7	7	N., NNE.	1	ESE.	6	Cu.-N.	E.	4.1
										E., NE.	1	E.	3	Cu.		6.1
										N., NE.	1	D.	3	Cu.	E.	2.0
80.0	99.0	2	55.0	29	20.4	24.2	18	16.2	8	NE., NNE.	2	NE.	4	Cu.	NE.	65.1
79.0	95.0	D.	57.0	28	20.0	22.2	20	16.4	5	E., ENE.	2	NE.	3	Cu.	NE.	272.8
91.0	99.0	23	52.0	23	23.4	28.0	27	15.9	23	N., NNW.	1	NNE.	3	Cu.-N.	NE.	28.3
85.0	99.0	30	57.0	25	20.0	24.3	30	14.9	13	N., NNW.	1	N.	3	Cu.-N.	NE.	195.5
80.0	97.0	$\left\{ \begin{smallmatrix} 1 \\ 11 \end{smallmatrix} \right\}$	51.5	24	19.8	22.7	1	16.8	6	N., NNW.	2	NNE.	3	S.-Cu.	NNE.	47.2
76.0	96.0	$\left\{ \begin{smallmatrix} 1 \\ 13 \end{smallmatrix} \right\}$	52.0	5	19.4	22.8	1	16.4	$\left\{ \begin{smallmatrix} 5 \\ 28 \end{smallmatrix} \right\}$	NE., NNE.	1	NE.	3	Cl.-S.		95.5
94.0	100.0	12	77.0	14	23.5	27.9	29	19.6	23	NE., NNE.	1	NE.	4	Cu.	NE.	306.3
										E., ENE.	2	E., NE.	6	Cu.-N.	NE.	101.8

Observations made at the principal meteorological

APRIL.

Station.	Class.	Position.		Elevation above sea level.	Atmospheric pressure. ¹					Temperature.				
		North latitude.	East longitude.		Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.
		° /	° /	Meters.	Mm.	Mm.		Mm.		°C.	°C.		°C.	
Aparri	I	18 22	121 34	3.50	760.65	764.50	1	757.10	22	26.3	31.7	27	21.7	3
San Fernando	III	16 37	120 19	7.00	59.90	60.60	D.	55.80	22	29.6	34.8	25	21.9	7
Baguio	I	16 35	120 43	1,456.00	58.61	60.98	14	56.08	5	19.7	29.3	25	9.0	4
Dagupan	I	16 04	120 19	4.70	59.54	62.67	1	56.20	17	28.7	38.7	30	21.8	4
San Isidro	II	15 22	120 53	28.00	59.27	62.95	1	54.30	17	29.0	39.2	9	16.8	3
Iba	III	15 21	119 57	4.20	58.90	60.70	14	57.50	22	28.8	35.0	28	22.0	10
Arayat	III	15 08	120 46	10.00	59.00	60.40	15	58.10	D.	29.6	35.9	27	23.8	7
Atimonan	I	14 02	121 53	7.00	59.79	62.71	8	56.89	21	27.6	33.9	27	20.0	9
Legaspi	I	13 09	123 44	4.30	59.65	62.10	15	57.20	17	27.4	31.9	19	21.5	10
Capiz	II	11 36	122 42	6.00	59.78	61.87	11	57.18	10	27.6	33.0	17	22.8	11
Ormoc	I	11 01	124 33	4.50	59.40	61.96	8	56.54	21	25.8	33.1	29	19.0	12
Iloilo	I	10 42	122 35	6.00	59.42	62.53	8	57.25	26	27.3	33.2	26	23.4	D.
Cebu	I	10 18	123 54	3.00	59.06	61.50	15	56.40	30	27.5	32.0	21	22.4	4
Surigao	II	9 47	125 29	4.00	59.28	61.52	15	57.22	27	26.5	30.6	11	20.3	1
Tagbilaran	II	9 38	123 53	21.87	58.98	61.53	19	56.68	17	27.3	30.6	6	23.6	9

MAY.

		° /	° /	Meters.	Mm.	Mm.		Mm.		°C.	°C.		°C.	
Aparri	I	18 22	121 34	3.50	758.36	762.45	3	751.60	21	27.7	32.7	24	22.0	19
San Fernando	III	16 37	120 19	7.00	58.00	61.30	2	54.60	20	29.4	34.9	16	22.0	26
Baguio	I	16 35	120 43	1,456.00	57.70	60.20	17	53.24	20	19.5	28.0	18	11.7	12
Dagupan	I	16 01	120 19	4.70	58.39	61.52	17	54.05	21	28.4	37.9	3	22.6	23
San Isidro	II	15 22	120 53	28.00	57.86	61.95	29	50.50	20	29.4	38.3	19	23.7	15
Iba	III	15 21	119 57	4.20	58.20	59.90	17	54.80	21	29.3	36.0	3	24.5	23
Arayat	III	15 08	120 46	10.00	57.90	59.30	D.	54.40	20					
Atimonan	I	14 02	121 53	7.00	58.13	61.00	17	51.45	20	28.6	36.0	11	22.6	15
Legaspi	I	13 09	123 44	4.30	58.27	61.21	16	51.99	19	28.2	33.7	27	22.8	2
Capiz	II	11 36	122 42	6.00	58.85	61.90	14	55.28	20	28.1	35.5	29	22.6	28
Ormoc	I	11 01	124 33	4.50	58.91	61.71	14	55.30	19	26.5	32.0	29	20.1	16
Iloilo	I	10 42	122 35	6.00	59.14	63.19	14	54.41	21	28.1	37.6	10	22.0	31
Cebu	I	10 18	123 54	3.00	58.56	61.10	14	54.80	20	27.9	33.3	28	23.0	11
Surigao	II	9 47	125 29	4.00	58.93	61.52	16	56.32	2	26.1	34.2	25	21.5	28
Tagbilaran	II	9 38	123 53	21.87	58.86	61.39	16	56.11	19	28.2	34.5	18	22.8	7

JUNE.

		° /	° /	Meters.	Mm.	Mm.		Mm.		°C.	°C.		°C.	
Aparri	I	18 22	121 34	3.50	756.52	760.00	12	749.10	2	28.0	35.5	22	22.5	3
San Fernando	III	16 37	120 19	7.00	56.40	59.60	13	51.60	2	29.3	34.2	11	23.2	17
Baguio	I	16 35	120 43	1,456.00	56.43	59.55	21	51.15	2	18.8	26.4	26	13.0	15
Dagupan	I	16 04	120 19	4.70	57.23	59.86	11	52.07	2	27.5	35.3	11	22.4	3
San Isidro	II	15 22	120 53	28.00	56.86	60.00	16	52.05	1	27.8	36.7	16	18.2	19
Iba	III	15 21	119 57	4.20	57.10	58.90	25	54.40	2	27.7	32.5	15	24.2	19
Arayat	III	15 08	120 46	10.00	56.70	59.00	27	53.40	2	28.2	33.3	27	24.1	19
Atimonan	I	14 02	121 53	7.00	56.90	59.45	11	52.95	1	28.3	36.0	22	22.4	23
Legaspi	I	13 09	123 44	4.30	57.53	59.80	11	51.98	1	27.9	34.2	28	22.2	17
Capiz	II	11 36	122 42	6.00	58.35	60.35	21	55.79	28	28.0	33.0	13	24.0	4.5
Ormoc	I	11 01	124 31	4.50	58.51	60.70	21	55.10	28	26.5	32.0	13	19.3	8
Iloilo	I	10 42	122 35	6.00	57.27	59.65	21	54.39	28	27.7	37.3	13	22.4	30
Cebu	I	10 18	123 54	3.00	58.10	60.40	21	54.90	5	27.7	32.6	13	21.8	7
Surigao	II	9 47	125 29	4.00	58.60	60.66	18	55.77	28	26.3	33.4	28	22.5	1
Tagbilaran	II	9 38	123 53	21.87	58.53	60.96	22	55.43	28	28.1	32.9	13	21.1	3

¹ Reduced to sea level and 0° C.

METEOROLOGICAL RESULTS OF THE STATIONS, 1902.

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stations during the year 1902—Continued.

APRIL.

Relative humidity.					Vapor pressure.					Wind.				Clouds.		Rainfall.
Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Pre-vailing direction.	Mean force, 0-12.	Maximum— Direction.	Force, 0-12.	Pre-vailing form.	Pre-vailing direction.	
Per ct.	Per ct.		Per ct.		Mm.	Mm.		Mm.								Mm.
82.0	97.0	2	55.0	26	20.6	24.8	24	16.7	3	ENE. W.	1	E., ENE. W., WNW.	3	S.-Cu. S.-Cu.	SE. W.	14.0
74.0	97.0	{ 8 25 }	20.0	22	12.2	16.4	27	4.8	3	SE.	1	SE., W.	3	Cu.	E.	24.6
67.0	96.0	26	22.0	6	18.8	25.4	26	12.4	4	NNW.	1	NW.	3	Cu.	E.	2.8
65.0	98.0	1	36.0	10	18.8	23.1	15	14.7	3	ENE., NE. W.	1	ENE. W., NW.	5 3	Cu.-N. S.-Cu.	ENE. W.	20.9 11.2
										D.	1	E.	6	Cu.	E.	56.6
80.8	97.0	{ 15 18 }	53.0	8	22.0	28.7	3	17.2	8	N.	2	NE.	5	Cu.	NE.	165.8
79.4	89.0	D.	61.0	3	21.5	23.8	28	18.1	3	E.	2	NE., E.	4	Cu.	E.	487.8
86.7	99.0	D.	71.0	29	24.0	29.8	27	19.3	20	NNE.	1	NE.	2	Cu.-N.	E.	31.0
85.0	99.0	10	51.0	21	20.9	24.8	25	15.9	22	NNW.	1	SSE.	4	Cu.-N.	ENE.	132.6
77.1	96.0	{ 2, 3 13 }	48.0	20	20.6	22.8	4, 5	16.5	20	NE.	2	NE., by N.	4	S.-Cu.	NE.	74.7
74.0	93.0	14	50.0	20	20.1	23.6	10	15.8	11	NE.	1	NE.	3	S.-Cu.	ENE.	45.0
92.1	100.0	28	69.0	20		26.3	20	21.0	6	E. NE.	1 2	E., NE. E., ENE.	4 6	Cu. Cu.-N.	NE. E.	574.3 1,728.6

MAY.

Per ct.	Per ct.		Per ct.		Mm.	Mm.		Mm.								Mm.
82.0	98.0	20	61.0	7	22.4	29.5	15	18.8	19	S.	1	NNW.		Cu.	SE.	50.8
										W.	1	W., WSW.	6 3	S.-Cu.	E.	134.4
85.0	100.0	22	36.0	3	14.3	18.2	{ 18 29 }	8.7	3	SW.	1			Cu.	W.	483.6
76.0	99.0	22	34.0	7	21.5	25.3	19	14.9	1	SSE.	1	NW.	4	S.-Cu.	E.	193.8
72.5	97.0	26	39.0	9	21.5	25.4	26	16.9	1	ENE.	1	NW.	2	Cu.-N.	ENE.	93.1
										W.	1	W.	5	Cu.		217.7
79.1	99.0	13	46.0	27	22.6	25.9	4	21.7	8	SW.	1	W.	5	Cu.		131.5
79.7	92.0	D.	61.0	23	22.4	24.5	28	20.2	{ 25 31 }	WSW.	1	ENE.	3	Cu.	NE.	162.5
										E.	1	WSW.	4	Cu.	E.	158.0
86.0	99.0	{ 27 31 }	65.0	30	21.9	27.1	11	18.0	7	NNW.	1	SSE.	4	Cu.-N.	E.	90.0
80.0	97.0	25	55.0	{ 28 29 }	22.4	26.3	24	19.4	{ 5 13 }	SW.	1	SW.	4	Cu.		170.3
78.0	95.0	17	52.0	29	21.7	25.7	4	17.3	29	SW.	1	SW.	6	Ci.-S.		161.3
87.0	99.0	D.	62.0	21	24.1	27.1	6	21.9	29	SW.	1	E.	7	Cu.		174.0
80.8	98.0	16	62.0	18	22.4	28.3	26	19.9	2	E.	2	N.	7	Cu.	NE.	505.5

JUNE.

Per ct.	Per ct.		Per ct.		Mm.	Mm.		Mm.								Mm.
80.6	98.0	5	53.5	23	22.4	26.9	25	18.9	23	S.	1	SE.	4	S.-Cu.	S.	99.3
										SSW.	2	W.	6	S.-Cu.	E.	78.5
88.7	100.0	8	62.0	14	14.3	18.1	26	7.7	13	SW.	1	W.	5	S.-Cu.	W.	488.9
82.2	99.0	D.	44.0	13	22.2	25.5	{ 6 15 }	17.1	13	SE.	1	NW.	2	S.-Cu.	WNW.	447.4
84.0	99.0	13	55.0	11	23.1	27.3	25	18.2	19	SSE.	0	SSE.	1	Cu.-N.	S.	228.3
										SW.	1	W.	5	N.	S.	504.5
										SW.	1	SW.	6	Cu.		381.9
79.5	98.0	2	45.0	10	22.3	25.2	12	18.7	10	SW.	1	WSW.	3	Cu.	SW.	128.8
79.4	97.0	15	57.0	21	21.9	23.7	{ 12 14 }	18.8	17	W.	1	SW.	3	Cu.	W.	162.1
89.0	100.0	{ 14 29 }	73.0	26	25.8	30.0	27	20.7	18	NE.	0	SW.	3	Cu.-N.	SE.	129.7
84.0	97.0		66.0	21	21.6	25.0	22	18.4	{ 10 14 }	S., SSE.	1	S. by E.	3	Cu.-N.	SW.	168.7
83.9	98.0	22	57.0	13	23.1	28.2	22	19.6	11	SW.	1	SW.	3	Cu.	SW.	114.4
77.0	92.0	1, 7	54.0	11	21.1	24.0	6	18.1	22	SW.	1	SW.	3	Cu.-N.	SW.	177.2
86.3	100.0	5	62.0	{ 28 29 }	24.2	28.8	27	20.7	20	SW.	1	SW.	4	Cu.-N.	NE.	46.2
78.9	96.0	24	61.0	22	21.9	24.9	11	18.4	17	E.	2	SSE.	5	Cu.	SW.	270.5

JULY.

AUGUST.

		° /	° /	Meters.	Mm.	Mm.		Mm.		°C.	°C.		°C.	
Aparri	I	18 22	121 34	3.50	755.46	759.98	13	746.37	1	27.4	34.4	31	21.0	1
Vigan	II	17 33	120 20	22.00	56.50	59.89	12	52.51	1	26.9	30.4	15	24.0	13
Co. Bolinao	II	16 29	119 46	4.00	56.53	59.36	12	52.30	29					
Dagupan	I	16 04	120 19	4.70	56.40	60.05	13	52.45	29	26.6	34.7	15	23.0	D.
San Isidro	II	15 22	120 53	28.00	56.86	58.85	12	50.30	29	28.0	33.6	12	23.1	31
Olongapó	II	14 49	120 15	4.40	56.13	58.99	12	52.86	29					
Atimonan	I	14 02	121 53	7.00	56.13	59.08	12	52.08	6	27.3	34.8	9	22.0	4
Legaspi	I	13 09	123 44	4.30	56.53	59.20	8	53.17	1	27.4	33.8	22	22.7	25
Capiz	II	11 36	122 42	6.00	57.59	59.90	12	55.27	6	27.6	33.0	8	23.4	4
Ormoc	I	11 01	124 33	4.50	57.54	59.85	2	54.09	14	26.8	31.9	4	21.6	3
Iloilo	I	10 42	122 35	6.00	56.73	59.09	30	54.45	1	27.1	30.6	26	20.5	14
Cebu	I	10 18	123 54	3.00	57.47	59.78	2	53.80	14	27.4	31.1	20	22.1	20
Maasim	II	10 08	124 45	7.60	57.43	59.55	12	54.20	14	27.5	32.6	4	22.9	13
Surigao	II	9 47	125 29	4.00	58.63	60.82	1	56.32	15	28.4	33.0	8	23.0	12
Tagbilaran	II	9 38	123 53	21.87	57.97	60.27	2	54.35	14	28.1	34.6	18	22.3	23

METEOROLOGICAL RESULTS OF THE STATIONS, 1902.

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stations during the year 1902—Continued.

JULY.

Relative humidity.					Vapor pressure.					Wind.				Clouds.		Rainfall.	
Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Pre- vailing direction.	Mean force, 0-12.	Maximum—		Pre- vailing form.	Pre- vailing direction.		
												Direction.	Force, 0-12.				
<i>Per ct.</i>	<i>Per ct.</i>		<i>Per ct.</i>		<i>Mm.</i>	<i>Mm.</i>		<i>Mm.</i>								<i>Mm.</i>	
81.8	98.0	{ 25 30 }	56.5	10	22.5	26.3	5	19.5	9	S.	1	SE.	3	S.-Cu.	SE.	273.8	
81.0	92.0	{ 11 26 }	62.0	18	22.5	25.6	6	19.6	19	SE.	1	S.	9	S.-Cu.	S.	283.9	
83.2	98.0	D.	51.0	13	21.5	24.7	5	18.3	21	S. SE. SW.	1 1 1	SE. SE. SW.	3 3 8	N. Cu.-N. Cu.	SW. S. SW.	589.0 445.8 564.1	
82.9	99.0	9	55.0	18	22.1	25.3	4	19.0	1	WSW.	2	WSW.	4	N.	S.	305.4	
80.6	98.0	10	57.0	28	21.5	24.7	3	19.7	D.	W.	1	WSW.	5	Cu.-N.	W.	307.4	
91.8	99.0	D.	78.0	20	24.9	30.9	3	18.0	22	SSE.	1	SSW.	5	Cu.-N.	SW.	281.8	
} 85.0	99.0	1	45.0	1	21.5	28.5	21	18.5	D.	S.	1	S.	4	Cu.-N.	SW.	560.0	
	98.0	{ 2, 8 13 }	67.0	4	22.8	28.9	5	19.7	{ 11 15 21 }	SSW.	2	SW	3	N.	SW.	1,403.3	
	79.0		96.0	3	20.7	24.0	2	16.7		21	SW.	2	SW.	6	Cu.-N.	SW.	338.9
	81.8		99.0	21	55.0	5	22.3	28.9		3	17.9	18	SW.	1	SW.	6	Cu.-N.
} 82.1	98.0	D.	53.0	27	22.7	25.6	7	18.2	26	SW.	1	SW.	5	Cu.-N.		232.6	
	78.4	95.0	1	58.0	10	21.0	25.0	16	18.3	10	S.	2	SSW.	6	N.	SW.	1,379.6

AUGUST.

<i>Per ct.</i>	<i>Per ct.</i>		<i>Per ct.</i>		<i>Mm.</i>	<i>Mm.</i>		<i>Mm.</i>								<i>Mm.</i>
83.4	99.0	1	55.0	2	22.5	26.9	10	18.8	2	S.	1	NW.	3	S.-Cu.	E.	363.5
86.0	94.0	D.	74.0	25	23.0	26.1	9	19.9	2	S.	1	{ W. SW. }	6	S.-Cu.	SW.	654.2
										SW.	1	SW.	2	N.	SW.	773.7
86.1	99.0	{ 9 31 }	57.0	15	22.1	26.3	9	16.9	7	SSE.	1	NE. by N.	3	Cu.-N.	W.	520.7
86.0	98.0	{ 30 30 }	60.0	12	24.2	30.5	9	21.3	1	SW.	1	W.	8	Cu.-N.	-----	370.5
										SW.	1	{ WSW. SW. }	8	N.	SW.	1,192.3
81.3	98.0	12	53.0	22	21.7	24.8	17	17.2	3	WSW.	1	W.	3	Cu.	W.	159.3
79.6	94.0	{ 23 24 }	52.0	3	21.5	24.1	26	19.2	3	W.	1	W.	4	Cu.-N.	W.	116.9
91.1	99.0	4	77.0	1	25.1	30.9	6	20.1	14	SSE.	1	S.	2	Cu.-N.	SW.	178.6
85.0	99.0	5	62.0	8	22.1	25.7	22	18.0	4	SSE.	1	S.	3	Cu.-N.	SW.	156.0
87.8	97.0	{ 3 12 }	59.0	17	23.4	26.2	3	20.2	4	SSW.	2	SW.	3	Cu.	SSW.	391.1
77.0	97.0	22	61.0	20	20.9	24.7	17	17.5	31	SW.	1	S.	3	Cu.-N.	W.	149.5
81.4	96.0	10	57.0	4	22.1	25.8	17	18.5	19	SW.	2	SW.	4	Cu.	SW.	93.8
80.3	97.0	{ 18 22 }	53.0	2	22.8	25.3	13	18.3	6	SW.	1	N.	6	S.-Cu.	-----	117.8
74.9	94.0	23	54.0	{ 1 8 }	20.9	23.5	17	18.2	{ 1 28 }	SW.	2	SW.	4	Cu.	SW.	67.2

REPORT OF THE DIRECTOR OF THE WEATHER BUREAU.

Observations made at the principal meteorological

JULY.

Station.	Position.		Elevation above sea level.	Atmospheric pressure. ¹				
	North latitude.	East longitude.		Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.
	° /	° /	Meters.	Mm.	Mm.		Mm.	
Candón.....	17 12	120 26	4.0	755.89	759.50	5	744.00	26
San Fernando.....	16 37	120 19	7.0	55.43	59.97	23	44.07	26
Baguio.....	16 35	120 43	1,456.0	55.48	59.45	5	44.93	26
Tarlac.....	15 31	120 35	20.0	56.42	59.22	5	43.85	26
Iba.....	15 21	119 57	4.2	55.85	59.40	20	46.70	26
Arayat.....	15 08	120 46	10.0	56.99	59.97	18	46.27	26
Corregidor.....	14 24	120 38	194.0	56.66	59.75	19	47.25	26
Nueva Cáceres.....	13 38	123 12	8.0	56.72	59.76	18	48.76	26
San José de Buenavista.....	10 45	121 55	4.0	56.93	60.93	{ 17 } 18	52.43	26
Tuburan.....	10 44	123 48	8.0	57.02	60.67	18	52.47	26
Balingasag.....	8 45	124 44	5.0					
Dapitan.....	8 38	123 24	6.0	56.75	59.12	21	53.02	25
Caraga.....	7 30	126 32	28.0	56.15	58.50	17	53.20	26
Dayao.....	7 01	125 35	3.0	57.76	59.68	18	56.18	26
Joló.....	6 03	120 59	7.0	58.54	58.66	D.	57.66	8

AUGUST.

	° /	° /	Meters.	Mm.	Mm.		Mm.	
Candón.....	17 12	120 26	4.0	756.15	758.10	12	753.20	1
San Fernando.....	16 37	120 19	7.0	56.81	58.57	13	51.87	29
Baguio.....	16 35	120 43	1,456.0	54.89	58.32	12	52.20	1
Tarlac.....	15 31	120 35	20.0	56.10	58.30	13	53.20	{ 1 } 29
Iba.....	15 21	119 57	4.2	56.45	58.20	13	53.50	1
Arayat.....	15 08	120 46	10.0	56.41		12	52.77	29
Corregidor.....	14 24	120 38	194.0	57.50	59.45	{ 12 } 13	55.15	30
Nueva Cáceres.....	13 38	123 12	8.0	56.49	58.56	12	54.16	1
San José de Buenavista.....	10 45	121 55	4.0	56.41	59.93	8	54.43	14
Tuburan.....	10 44	123 48	8.0	57.02	58.07	{ 9 } 12	55.27	15
Balingasag.....	8 45	124 44	5.0					
Dapitan.....	8 38	123 24	6.0	57.21	59.02	9	55.82	15
Caraga.....	7 30	126 32	28.0	57.25	58.91	9	54.94	15
Dayao.....	7 01	125 35	3.0	57.52	59.18	9	56.18	24
Joló.....	6 03	120 59	7.0	58.49				

¹ Reduced to sea level and 0° C.

METEOROLOGICAL RESULTS OF THE STATIONS, 1902.

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stations during the year 1902—Continued.

JULY.

Temperature.					Wind.				Clouds.		Rainfall.
Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Prevailing direction.	Mean force, 0-12.	Maximum—		Prevailing form.	Prevailing direction.	
							Direction.	Force, 0-12.			
°C.	°C.		°C.								Mm.
27.7	32.9	7	23.7	21	SE.	1	SE.	5			336.2
28.5	33.5	12	25.5	18	SW.	1	S.	5	S.-Cu.		308.8
18.6	26.5	13	13.5	19	SW.	1	SE.	3	S.-Cu.	S.	388.6
				20	ESE.	1	SE.	3	S.-Cu.		375.9
27.4	33.5	6	24.0	D.	SE.	1	W.	8	N.		852.1
25.9	33.3	12	22.2	20	SW.	1	SW.	6	Cu.		288.4
26.4	32.0	5	23.0	D.	SW.	2	SSW.	6	S.-Cu.		500.4
26.9	35.5	5	21.8	2	SW.	1	SW.	6	Cu.-N.		277.7
					S.	2	S.	4	N.		756.8
27.2	35.2	5	21.7	24	SSW.	1	SSW.	5	Cu.-N.		319.1
27.2	35.0	5	23.0	16	W.	1	S.	4	Cu.-N.		247.2
26.7	33.5	28	20.7	18	NW.	1	SW.	5	N.		209.3
27.0	31.6	15	22.0	12	S.	2	S.	8	Cu.-N.		81.5
26.5	31.6	20	20.8	9	SE.	1	N.	6	N.		196.0
26.8	31.7	6	22.2	3	S.	1	SW.	5	S.-Cu.		178.2

AUGUST.

°C.	°C.		°C.								Mm.
27.1	31.0	16	23.7	3	SW.	1	SSE.	3	Cu.-N.		600.2
27.9	34.0	4	24.5	13	SW.	1	SW.	4	Cu.-N.		820.7
18.7	26.2	15	10.0	27	SW.	1	D.	2	S.-Cu.		1,238.0
26.1	34.0	16	22.0	20	ESE.	1	D.	2	S.-Cu.		300.2
27.1	31.0	21	23.9	20	SW.	1	S.	3	N.		898.8
26.3	32.7	22	22.6	7	SW.	1	S.	5	S.-Cu.		109.7
25.8			21.2	30	SW.	1	SW.	4	Cu.-N.		566.9
27.4	33.7	13	22.2	D.	SW.	1	SW.	5	Cu.-N.		202.0
27.8	32.0	2			SW.	1	SSW.	4	Cu.		468.8
27.8	34.1	9	22.3	3	W.	1	W.	3	Cu.-N.		33.8
27.5	33.0	4	21.1	D.	SW.	1	W.	2	Cu.-N.		127.4
27.1	33.0	2	22.0	21	NW.	1	NW.	4	Cu.		120.3
26.8	33.2	18	21.8	30	S.	2	S.	9	S.-Cu.		64.3
26.7	31.9	13	22.4	19	S.	1	S.	3	S.-Cu.		242.8
26.4	31.9	5	21.5	22	S.	1	SW.	5	S.-Cu.		91.7

Observations made at the principal meteorological

SEPTEMBER.

Station.	Class.	Position.		Elevation above sea level.	Atmospheric pressure. ¹					Temperature.				
		North latitude.	East longitude.		Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.
		° /	° /	Meters.	Mm.	Mm.		Mm.		°C.	°C.		°C.	
Aparri	I	18 22	121 34	3.50	756.85	763.05	30	751.10	22	26.3	33.2	3	20.6	29
Vigan	II	17 33	120 20	22.00	57.16	61.44	30	54.35	6	26.3	30.8	14	21.3	22
Cape Bolinao	II	16 29	119 46	4.00	57.30	61.80	30	53.94	6					
Dagupan	I	16 04	120 19	4.70	57.24	62.12	30	53.34	6	26.3	33.8	8	20.2	22
San Isidro	II	15 22	120 53	28.00	57.19	60.25	30	51.23	7	27.8	34.5	12	20.6	29
Olongapo	II	14 49	120 15	4.40	56.80	60.87	30	53.56	7					
Atimonan	I	14 02	121 53	7.00	56.93	61.58	30	53.68	23	27.0	34.3	23	21.4	13
Legaspi	I	13 09	123 44	4.30	57.17	61.58	30	53.80	6	27.1	33.9	14	22.2	26
Capiz	II	11 36	122 42	6.00	58.21	61.58	30	55.45	14	27.3	34.4	19	23.0	13
Ormoc	I	11 01	124 33	4.50	58.40	61.65	29	55.30	1	26.8	32.1	27	20.7	26
Iloilo	I	10 42	122 35	6.00	57.65	60.86	30	54.95	6	27.1	33.4	26	21.3	28
Cebu	I	10 18	123 54	3.00	58.10	61.65	30	54.85	14	27.4	32.5	4	24.2	11
Maasim	II	10 08	124 45	7.60	58.06	60.82	30	55.80	6	27.4	31.4	11	22.0	5
Surigao	II	9 47	125 29	4.00	59.23	61.95	30	57.12	6		33.5	19	23.2	1,2
Tagbilaran	II	9 38	123 53	21.87	58.73	61.48	30	55.82	1	28.1	33.9	25	22.0	2

OCTOBER.

		° /	° /	Meters.	Mm.	Mm.		Mm.		°C.	°C.		°C.	
Aparri	I	18 22	121 34	3.50	761.72	765.65	18	757.76	31	25.8	32.0	31	20.5	19
Vigan	II	17 33	120 20	22.00	60.41	63.75	18	57.40	31	27.4	36.4	20	19.7	22
Cape Bolinao	II	16 29	119 46	4.00	60.59	64.05	18	57.54	31					
Dagupan	I	16 04	120 19	4.70	60.49	63.97	18	56.90	31	27.0	36.0	27	21.0	30
San Isidro	II	15 22	120 53	28.00	59.80	62.20	18	55.00	4	26.8	34.3	16	19.0	26
Olongapo	II	14 49	120 15	4.40	59.55	62.59	18	55.41	30				19.4	30
Atimonan	I	14 02	121 53	7.00	61.23	64.08	18	57.98	30	27.1	33.2	23	22.5	16
Legaspi	I	13 09	123 44	4.30	59.85	62.91	18	57.06	30	26.8	32.9	2	21.4	2
Capiz	II	11 36	122 42	6.00	60.19	63.51	18	57.05	30	27.2	32.2	7	22.8	17
Ormoc	I	11 01	124 33	4.50	60.21	63.65	18	56.26	30	25.4	32.2	26	20.1	16
Iloilo	I	10 42	122 35	6.00	59.34	61.77	17	56.29	14	27.2	33.0	14	21.3	2
Cebu	I	10 18	123 54	3.00	59.59	62.74	17	56.00	30	27.3	31.9	27	22.5	8
Maasim	II	10 08	124 45	7.60	59.41	62.60	18	56.16	30	26.8	31.8	2	22.2	26
Surigao	II	9 47	125 29	4.00	60.42	63.32	18	57.00	30	27.6	31.7	4	22.8	7
Tagbilaran	II	9 38	123 53	21.87	59.87	62.50	18	56.27	30	27.4	33.3	5	22.0	26

¹ Reduced to sea level and 0° C.

METEOROLOGICAL RESULTS OF THE STATIONS, 1902.

65

stations during the year 1902—Continued.

SEPTEMBER.

Relative humidity.					Vapor pressure.					Wind.				Clouds.		Rainfall.
Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Pre- vailing direc- tion.	Mean force, 0-12.	Maximum—		Pre- vailing form.	Pre- vailing direc- tion.	
												Direction.	Force, 0-12.			
Per ct.	Per ct.		Per ct.		Mm.	Mm.		Mm.								Mm.
85.3	99.0	{ 11 13 }	62.0	7	21.6	25.9	3	17.4	28	NE.	1	NW.	4	Cu.-N.	NE.	594.4
85.0	97.0	{ 5 23 }	55.0	28	21.8	24.9	{ 1 14 }	17.9	21	S.	1	SSE.	6	S.-Cu.	-----	843.3
										NW.	1	SW.	2	N.	-----	402.8
84.3	99.0	16	57.0	{ 29 30 }	21.3	23.9	1	15.0	21	WNW.	1	NW.	3	Cu.-N.	SW.	379.2
84.4	98.0	{ 5 12 }	57.5	11	23.3	29.8	8	14.9	21	W.	1	WSW.	5	Cu.	-----	423.3
										SW.	1	SW.	6	Cu.	-----	869.0
81.9	97.0	D.	53.0	D.	21.4	24.2	12	19.3	D.	W.	1	WSW.	3	N.	SW.	317.4
79.9	95.0	6	53.0	13	21.2	23.1	16	18.3	26	W.	1	WSW.	3	Cu.-N.	W.	230.4
89.8	99.0	16	78.0	D.	24.4	30.0	1	20.6	27	D.	1	NNW.	3	S.-Cu.	-----	140.1
84.0	100.0	18	59.0	27	19.4	26.9	8	17.6	26	SSE.	1	SSE.	3	Cu.-N.	SW.	266.2
86.1	99.0	6	70.0	26	22.9	25.7	{ 9 20 }	20.0	29	SW.	2	SW.	3	Cu.	SW.	511.9
77.0	97.0	15	50.0	4	21.0	24.9	18	17.3	4	SW.	1	SW.	4	Cu.	W.	52.3
78.9	95.0	2	49.0	14	21.5	24.3	18	17.8	26	SW.	1	SW.	6	Cu.	SW.	114.2
77.2	96.0	29	56.0	{ 6 22 }	22.5	25.5	25	19.1	26	SW.	1	SW.	6	Cu.	-----	46.7
74.6	89.0	4	51.0	17	20.8	26.9	4	17.8	16	SW.	2	SSW.	5	Cu.	W.	472.3

OCTOBER.

Per ct.	Per ct.		Per ct.		Mm.	Mm.		Mm.								Mm.
82.8	99.0	5	55.0	18	20.3	23.9	31	16.4	18	NE.	1	E.	3	S.-Cu.	NE.	118.9
71.0	94.0	3	40.0	11	19.3	24.4	3	12.7	19	E.	1	NW.	4	S.-Cu.	-----	0.0
										SE.	1	D.	2	Cu.	-----	9.4
77.2	97.0	{ 4 } 5	42.0	23	20.2	25.9	3	15.0	19	SSE.	1	NNW.	2	S.-Cu.	D.	83.1
80.6	99.0	D.	53.0	{ 25 } 29	20.9	26.9	2	16.2	23	SE.	1	N. by W.	5	Cu.	-----	37.8
										E.	1	D.	4	Cu.	-----	30.5
82.2	97.0	6	58.0	{ 16 } 23	21.8	24.1	6	18.9	19	NE.	1	NE.	3	Cu.	NE.	591.5
80.2	93.0	{ 6 } 7	56.0	16	21.0	23.5	14	17.6	17	ENE.	1	NE.	3	Cu.-N.	ENE.	336.5
89.4	98.0	D.	77.0	15	24.0	27.7	28	19.5	7	NNE.	1	NNE.	4	Cu.-N.	-----	336.2
88.0	99.0	25	56.0	27	21.0	24.4	12	17.4	19	NNW.	1	S. by E.	2	Cu.-N.	NE.	236.2
85.1	96.0	23	65.0	17	22.8	26.5	14	19.4	17	NNE.	1	SSW.	3	Cu.	NE.	219.5
78.0	96.0	D.	57.0	14	20.9	23.8	5	17.6	26	NE.	1	ENE.	2	Cu.-N.	ENE.	106.7
78.0	92.0	30	56.0	26	20.6	23.9	9	16.6	19	SW.	1	E.	3	Cu.	SW.	134.2
86.4	98.0	{ 7 } 12	65.0	{ 1 } 4	23.6	27.2	15	21.1	5	NE.	1	N.	4	Cu.-N.	-----	174.0
79.6	93.0	24	62.0	{ 4 } 5	21.5	24.8	24	17.8	26	N.	2	NW.	4	N.	-----	1,142.1

Observations made at the principal meteorological

SEPTEMBER.

Station.	Position.		Elevation above sea level.	Atmospheric pressure. ¹				
	North latitude.	East longitude.		Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.
	° /	° /	Meters.	Mm.	Mm.		Mm.	
Candón.....	17 12	120 26	4.0	756.75	760.20	30	752.40	22
San Fernando.....	16 37	120 19	7.0	56.36	59.57	30	51.57	23
Baguio.....	16 35	120 43	1,456.0	55.25	57.76	26	52.16	22
Tarlac.....	15 31	120 35	20.0	56.68	60.20	30	54.10	22
Iba.....	15 21	119 57	4.2	55.80				
Arayat.....	15 08	120 46	10.0	56.96			55.07	7
Corregidor.....	14 24	120 38	194.0	57.23	60.25	30	55.25	1
Nueva Cáceres.....	13 38	123 12	8.0	57.98	59.56	30	55.26	7
San José de Buenavista.....	10 45	121 55	4.0	58.66	60.43	30	56.93	23
Tuburan.....	10 44	123 48	8.0	58.78	60.47	30	56.37	1
Balingasag.....	8 45	124 44	5.0					
Dapitan.....	8 38	123 24	6.0	57.88	59.82	19	55.92	6
Caraga.....	7 30	126 32	28.0	58.42	60.90	11	56.87	9
Davao.....	7 01	125 35	3.0	58.53	60.28	30	56.68	13
Joló.....	6 03	120 59	7.0	58.30	59.66	19	57.16	7 13

OCTOBER.

	° /	° /	Meters.	Mm.	Mm.		Mm.	
Candón.....	17 12	120 26	4.0	759.40	760.50	{ 1 23	758.00	{ 30 31
San Fernando.....	16 37	120 19	7.0	59.18	60.57	D.	55.57	{ 30 31
Baguio.....	16 35	120 43	1,456.0	57.86	59.88	12	55.85	31
Tarlac.....	15 31	120 35	20.0	59.22	61.70	12	57.30	8
Iba.....	15 21	119 57	4.2	59.90	61.90	18	58.00	31
Arayat.....	15 08	120 46	10.0	60.25	62.30	18	58.80	31
Corregidor.....	14 24	120 38	194.0	60.93	62.85	{ 17 18	58.55	31
Nueva Cáceres.....	13 38	123 12	8.0	59.70	62.06	18	57.76	30
San José de Buenavista.....	10 45	121 55	4.0	60.33	62.43	6	57.93	30
Tuburan.....	10 44	123 48	8.0	59.54	62.47	18	57.77	{ 30 31
Balingasag.....	8 45	124 44	5.0					
Dapitan.....	8 38	123 24	6.0	58.35	60.02	D.	56.02	30
Caraga.....	7 30	126 32	28.0	59.47	61.86	6	56.94	30
Davao.....	7 01	125 35	3.0	59.48	61.08	{ 12 18	57.58	30
Joló.....	6 03	120 59	7.0	58.41	60.36	6	56.06	30

¹ Reduced to sea level and 0° C.

METEOROLOGICAL RESULTS OF THE STATIONS, 1902.

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stations during the year 1902—Continued.

SEPTEMBER.

Temperature.					Wind.				Clouds.		Rainfall.
Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Prevailing direction.	Mean force, 0-12.	Maximum—		Prevailing form.	Prevailing direction.	
							Direction.	Force, 0-12.			
°C.	°C.		°C.								Mm.
26.5	32.4	11	20.8	22	SW.	1	SSW.	5	Cu.	-----	592.3
26.4	35.2	8	21.0	21	W.	1	E.	4	S.-Cu.	-----	439.4
18.0	22.5	3	12.0	22	NW.	1	D.	2	S.-Cu.	-----	602.7
26.3	33.6	7	20.1	22	D.	1	SW., S.	3	S.-Cu.	-----	373.8
27.3					W.	1	SW.	3	N.	-----	1,200.6
26.5	32.1	15	20.7	22	Calm.		S., SW.	4	S.-Cu.	-----	292.1
25.5	31.3	{ 15 16 17	20.0	1	SW.	1	SW.	3	S.-Cu.	-----	868.2
27.0	35.0	{ 27 28 29	20.6	{ 15 16 17	SW.	1	SW.	3	Cu.-N.	-----	127.2
28.2	32.0	{ 22 30	24.2	27	SSW.	1	SW.	4	Cu.-N.	-----	338.1
27.9	34.7	23	22.5	30	WSW.	1	{ SW. SSW.	{ 4 4	Cu.-N.	-----	71.9
27.3	33.0	D.	22.0	D.	SW.	1	SW.	4	Cu.-N.	-----	236.9
26.6	34.5	6	21.9	{ 23 24 25	NW.	1	NNW.	5	Cu.	-----	132.8
27.3	33.8	12	22.0	{ 24 25	S.	2	S.	10	Cu.-N.	-----	26.7
27.4	31.6	{ 13 26	22.6	4	SE.	1	D.	3	Cu.	-----	50.7
27.0	32.4	26	20.1	8	S.	1	SSW.	5	S.-Cu.	-----	101.1

OCTOBER.

°C.	°C.		°C.								Mm.
27.2	31.4	29	23.5	D.	NNW.	1	WNW.	2	Cu.		21.1
28.3	31.7	14	21.4	20	WSW.	1	W.	3	A.-Cu.		1.8
18.6	24.4	28	12.6	20	WNW.	1	D.	2	Cu.-N.		212.1
27.2	34.8	3	20.0	19	SW.	1	D.	1	Cu.		141.6
28.0	32.8	29	22.5	24	N.	1	S.	3	Cu.		49.3
27.6	35.2	15	20.8	20	N.	1	D.	1	Cu.	E.	25.1
26.2	35.6	15	22.3	9	N.	1	D.	2	S.-Cu.		29.7
26.2			20.2	19	NNE.	1	NNE.	3	S.-Cu.		225.0
	33.5	25	22.5	17	N.	1	D.	2	Cu.		72.1
26.6	32.1	4	21.2	26	N.	1	N.	4	Cu.-N.		170.0
26.4			21.1	26	SW.	1	NW.	3	Cu.		80.5
27.2	34.1	8	20.5	29	NE.	1	NNW.	5	Cu.		364.0
	33.0	20	22.0	9	NE.	1	NE.	5	S.-Cu.		18.4
27.0	32.4	19	21.6	25	SE.	1	ESE.	4	Cu.		118.4
26.6	32.3	14	22.4	D.			NW.	1	Cu.		148.1

REPORT OF THE DIRECTOR OF THE WEATHER BUREAU.

Observations made at the principal meteorological

NOVEMBER.

Station.	Class.	Position.		Elevation above sea level.	Atmospheric pressure. ¹					Temperature.				
		North latitude.	East longitude.		Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.
Aparri	I	18 22	121 34	Meters. 3.50	Mm. 761.79	Mm. 764.85	20	Mm. 758.35	9	°C. 25.6	°C. 31.7	1	°C. 17.8	30
Vigan	II	17 33	120 20	22.00	60.68	63.70	20	55.85	9	27.5	35.0	24	20.8	15
Cape Bolinao	II	16 29	119 46	4.00	60.54	63.58	17	55.65	8	27.2	33.6	3	21.0	16
Dagupan	I	16 04	120 19	4.70	60.57	63.94	20	53.15	9	26.6	34.9	13	19.4	29
San Isidro	II	15 22	120 53	28.00	59.18	62.70	20	54.20	8	26.1	33.9	D.	18.1	13
Olongapó	II	14 49	120 15	4.40	59.74	62.60	20	55.90	8	25.6			18.6	9
Atimonan	I	14 02	121 53	7.00	61.27	64.03	17	56.03	8	26.8	32.8	14	20.9	13
Legaspi	I	13 09	123 44	4.30	59.93	62.98	20	56.39	8	26.6	32.0	9	20.8	7
Capiz	II	11 36	122 42	6.00	60.27	63.34	20	57.43	9	27.4	32.5	13	22.2	14
Ormoc	I	11 01	124 33	4.50	59.73	62.68	20	55.92	10	25.3	31.5	12	18.6	17
Iloilo	I	10 42	122 35	6.00	59.43	61.86	20	56.47	9	27.1	32.5	10	22.2	14
Cebu	I	10 18	123 54	3.00	59.52	62.25	19	56.35	10	27.0	32.3	9	22.2	7
Maasim	II	10 08	124 45	7.60	59.32	61.83	19	56.20	10	26.5	31.6	24	21.4	17
Surigao	II	9 47	125 29	4.00	60.17	62.62	19	57.00	10	26.7	30.7	5	21.5	8
Tagbilaran	II	9 38	123 53	21.87	59.80	62.20	20	56.75	9	27.2	33.9	7	21.8	8

DECEMBER.

Station.	Class.	North latitude.	East longitude.	Elevation above sea level.	Atmospheric pressure. ¹					Temperature.				
		North latitude.	East longitude.		Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.
Aparri	I	18 22	121 34	Meters. 3.50	Mm. 761.56	Mm. 765.93	27	Mm. 757.50	10	°C. 24.8	°C. 32.5	10	°C. 19.8	19
Vigan	II	17 33	120 20	22.00	60.65	65.50	31	56.85	9	27.2			21.1	15
Cape Bolinao	II	16 29	119 46	4.00	60.59	65.04	31	57.68	10	26.7	33.7	7	20.2	24
Dagupan	I	16 04	120 19	4.70	60.52	65.03	31	56.36	9	26.4	33.1	1	19.9	27
San Isidro	II	15 22	120 53	28.00	60.20	63.40	31	55.00	9	26.2			17.4	29
Olongapó	II	14 49	120 15	4.40	59.64	64.00	31	56.00	9	25.9			17.0	25
Atimonan	I	14 02	121 53	7.00	61.18	65.03	31	57.53	9	26.3	32.8	1	20.5	11
Legaspi	I	13 09	123 44	4.30	60.02	63.90	31	55.98	10	26.6	30.7	D.	19.6	22
Capiz	II	11 36	122 42	6.00	60.17	64.70	31	56.95	10	26.7	32.3	7	20.5	25
Ormoc	I	11 01	124 33	4.50	59.90	64.10	31	55.80	10	25.3	32.6	1	17.8	25
Iloilo	I	10 42	122 35	6.00	59.26	63.18	31	55.64	9	26.4	31.8	11	20.9	15
Cebu	I	10 18	123 54	3.00	59.53	63.95	31	55.90	9	26.7	31.0	9	22.4	28
Maasim	II	10 08	124 45	7.60	59.24	63.40	31	55.90	9	26.4	30.9	17	21.5	30
Surigao	II	9 47	125 29	4.00	60.26	64.00	31	57.30	9		29.8	D.	22.2	25
Tagbilaran	II	9 38	123 53	21.87	59.68	63.70	31	56.00	9	26.7	32.8	10	20.5	27

¹ Reduced to sea level and 0° C.

METEOROLOGICAL RESULTS OF THE STATIONS, 1902.

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stations during the year 1902—Continued.

NOVEMBER.

Relative humidity.					Vapor pressure.					Wind.				Clouds.		Rainfall.
Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Pre-vailing direction.	Mean force, 0-12.	Maximum—		Pre-vailing form.	Pre-vailing direction.	
												Direction.	Force, 0-12.			
Per ct.	Per ct.		Per ct.		Mm.	Mm.		Mm.								Mm.
84.5	98.0	{ 13 14 }	67.0	20	20.3	23.5	3	17.3	14	NE.	1	NE.	3	Cu.-N.	E.	161.0
69.0	91.0	{ 10 14 }	41.0	10	18.6	22.1	{ 3 9 }	14.3	7	NW.	1	N.	6	S.-Cu.	E.	
78.3	97.0	21	45.0	25	20.9	28.4	6	15.0	25	SE.	1	NW.	3	Cu.		38.1
75.1	96.0	9	46.0	4	19.1	23.8	8	15.5	{ 19 28 }	SSE.	1	ESE.	4	Cu.	ESE.	37.3
80.7	100.0	6	50.0	29	20.1	26.2	17	14.1	15	NW.	1	SSE.	3	Cu.		143.3
80.0	99.0	24	51.0	28	19.1	26.6	14	15.5	16	E.	1	D.	4	Cu.		143.5
82.6	98.0	3	55.0	15	21.5	23.8	{ 3 6 }	18.3	15	NE.	2	NNE.	3	Cu.	NNE.	235.9
79.2	92.0	5	59.0	15	20.5	23.4	23	16.8	14	ENE.	1	NE.	3	Cu.-N.	ENE.	173.2
89.2	98.0	D.	58.0	14	24.2	28.7	25	17.5	14	NNE.	1	NE.	4	S.-Cu.		70.9
86.0	99.0	D.	53.0	6	20.4	24.2	22	16.0	21	NNW.	1	D.	2	Cu.-N.	ENE.	114.3
81.9	96.0	{ 11 14 }	61.0	28	21.7	24.4	9	19.0	12	NE.	2	D.	3	Cu.	NE.	28.7
76.0	97.0	18	53.0	14	20.1	22.9	2	16.0	15	NE.	1	ENE.	3	Cu.	ENE.	120.4
78.1	92.0	18	55.0	24	19.9	23.0	2	16.8	21	SW.	1	D.	2	Cu.		108.9
90.5	100.0	18	68.0	{ 8 10 }	23.4	28.0	22	19.0	17	E.	1	ENE.	3	Cu.-N.		292.1
80.1	92.0	17	49.5	7	21.1	23.8	2	16.7	7	N.	1	E.	4	S.-Cu.	E.	255.1

DECEMBER.

Per ct.	Per ct.		Per ct.		Mm.	Mm.		Mm.								Mm.
85.6	98.0	11	59.0	10	19.8	22.8	9	17.1	13	NE.	1	NE.	3	S.-Cu.	E.	198.1
68.0	95.0	31	44.0	18	18.2	22.2	28	13.8	17	E.	1	N.	5	S.-Cu.	D.	3.8
78.7	98.0	18	50.0	5	20.2	25.3	5	16.3	25	N.	1	SE.	2	S.-Cu.	D.	2.5
77.0	99.0	11	44.0	7	19.4	23.6	9	15.4	1	NNW.	1	N. by W.	3	S.-Cu.	D.	2.0
77.0	98.0	22	44.5	22	19.1	29.1	9	14.0	25	SSE.	1	SE.	5	Cu.		51.9
77.0	100.0	26	50.0	16	18.8	25.3	26	15.1	1	E.	1	ENE.	4	Cu.	E.	2.8
83.7	99.0	2	60.0	24	21.2	23.8	8	17.3	22	NE.	1	NE.	3	Cu.	NE.	63.2
80.1	92.0	3	61.0	14	20.7	23.0	8	16.2	25	ENE.	1	E.	3	Cu.-N.	E.	289.0
88.9	98.0	7	70.0	30	23.2	27.8	1	18.2	25	NE.	1	NE.	5	Cu.-N.	NE.	114.3
79.3	99.0	8	43.0	12	18.9	22.8	3	13.7	25	NNW.	1	NE.	2	Cu.	E.	81.8
82.1	96.0	20	61.0	27	21.0	24.1	3	18.1	27	NNE.	2	NNE.	4	Cu.	NE. by N.	126.7
76.0	95.0	18	43.0	12	19.7	22.6	22	13.9	12	NE.	1	NE.	3	Cu.	E.	58.4
77.0	95.0	18	47.0	12	19.6	27.0	10	14.6	1	SE.	1	D.	2	Cu.	SE.	87.8
87.1	100.0	9	66.0	26	22.5	25.4	1	19.6	26	E.	1	NE, E.	4	Cu.		190.0
78.3	97.0	19	55.5	27	20.1	24.5	2	16.0	27	NNE.	2	NNE.	4	Cu.	E.	207.1

Observations made at the principal meteorological

NOVEMBER.

Station.	Position.		Eleva- tion above sea level.	Atmospheric pressure. ¹				
	North latitude.	East longitude.		Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.
	° /	° /	Meters.	Mm.	Mm.		Mm.	
Candón.....	17 12	120 26	4.0	759.80	762.00	20	756.80	8
San Fernando.....	16 37	120 19	7.0	59.28	62.57	20	55.57	8
Baguio.....	16 35	120 43	1,456.0	58.59	59.91	20	55.31	11
Tarlac.....	15 31	120 35	20.0	59.74	62.20	20	55.70	8
Iba.....	15 21	119 57	4.2	59.50	61.40	20	56.70	9
Arayat.....	15 08	120 46	10.0	60.40	62.20	20	57.50	8
Corregidor.....	14 24	120 38	194.0	60.09	62.25	20	57.35	D.
Nueva Cáceres.....	13 38	123 12	8.0	59.69	62.56	20	57.36	10
San José de Buenavista.....	10 45	121 55	4.0	60.63	62.43	20	58.93	10
Tuburan.....	10 44	123 48	8.0	59.98	61.47	20	58.47	8
Balingasag.....	8 45	124 44	5.0	58.85	59.78	20		9
Dapitan.....	8 38	123 24	6.0	58.32	60.02	D.	56.12	10
Caraga.....	7 30	126 32	28.0	58.90	60.88	17	55.94	10
Davao.....	7 01	125 35	3.0	59.27	60.58	20	57.75	10
Joló.....	6 03	120 59	7.0	57.90	59.66	20	56.36	11
								10

DECEMBER.

	° /	° /	Meters.	Mm.	Mm.		Mm.	
Candón.....	17 12	120 26	4.0	759.80	762.80	31	757.80	10
San Fernando.....	16 37	120 19	7.0	59.48	62.07	31	55.57	9
Baguio.....	16 35	120 43	1,456.0	57.77	60.40	31	55.85	15
Tarlac.....	15 31	120 35	20.0	59.64	62.40	31	57.80	10
Iba.....	15 21	119 57	4.2	59.45	62.90	31	57.30	9
Arayat.....	15 08	120 46	10.0	60.35	62.70	31	58.60	10
Corregidor.....	14 24	120 38	194.0	60.14	63.35	31	58.15	9
Nueva Cáceres.....	13 38	123 12	8.0	59.38	62.36	31	56.76	10
San José de Buenavista.....	10 45	121 55	4.0	60.08	63.43	31	57.93	9
Tuburan.....	10 44	123 48	8.0	59.81	62.47	31	57.47	9
Balingasag.....	8 45	124 44	5.0	57.95	60.58	31	56.48	9
Dapitan.....	8 38	123 24	6.0	58.11	61.42	31	56.02	9
Caraga.....	7 30	126 32	28.0	58.90	61.88	31	56.88	10
Davao.....	7 01	125 35	3.0	58.99	61.18	31	56.68	25
Joló.....	6 03	120 59	7.0	57.43	60.56	31	55.16	9

¹ Reduced to sea level and 0° C.

METEOROLOGICAL RESULTS OF THE STATIONS, 1902.

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stations during the year 1902—Continued.

NOVEMBER.

Temperature.					Wind.				Clouds.		Rainfall.												
Monthly mean.	Maximum.	Day of maximum.	Minimum.	Day of minimum.	Prevailing direction.	Mean force, 0-12.	Maximum—		Prevailing form.	Prevailing direction.													
							Direction.	Force, 0-12.															
°C.	°C.		°C.								Mm.												
} 26.4	31.2	8	21.0	{ 18	SW.	1	NNE.	3	Cu.	-----	50.8												
												25.7	32.0	{ 2	19	21	SW.	1	SW.	2	A.-Cu.	-----	5.8
18.6	24.0	28	11.6	18	SE.	1	SE.	2			75.9												
26.1	33.9	7	18.9	17	SW.	1	S.	2	Cu.	E.	55.6												
27.1	33.2	11	21.0	22	E.	1	E.	2	Cu.	E.	87.6												
26.8	34.7	6	19.6	13	N.	-----	NE.	2	Cl.-S.	{ N.	6.6												
25.4	33.5	6	20.7	19	NE.	2	NE.	3	S.-Cu.		34.0												
26.8	34.0	28	19.5	27	NNE.	1	NNE.	2	S.-Cu.		63.0												
26.9	32.5	27	20.3	17	NW.	1	NW.	2	Cu.	-----	22.0												
} 26.2	32.1	{ 24	20.9	17	N.	1	N.	3	Cu.-N.	N.	191.5												
												27.0	35.0	29	20.0	22	SW.	NW.	3	Cu.-N.	-----	79.7	
26.8	35.7	5	20.9	22	NE.	1	NE.	4	Cu.	-----	291.3												
26.5	32.6	12	22.4	D.	N.	-----	N.	2	S.-Cu.	N.	421.4												
27.0	32.4	16	22.5	10	NNE.	1	NNE.	3	S.-Cu.	-----	62.7												
26.5	31.6	5	21.9	1	NNE.	-----	-----	-----	Cu.	NE.	120.4												

DECEMBER.

°C.	°C.		°C.								Mm.
26.0	30.5	29	20.1	14	NNW.	1	N.	3	S.-Cu.		0.0
28.1			20.0	23	WSW.	1	N.	4	A.-Cu.		5.1
18.6	24.8	17	12.3	18	SE.	1	D.	2	Cu.		24.1
26.2	33.5	D.	16.5	25	SSE.	1	SE.	2	S.-Cu.		17.0
26.8					N.	1	N.	2	S.-Cu.		7.6
26.4	34.2	25	18.0	25	N.	1	NNE.	3	S.-Cu.		20.1
25.1	29.8	8	19.0	2	NE.	1	NE.	3	S.-Cu.		10.9
25.7	32.2	2			NNE.	1	D.	3	S.-Cu.		51.0
26.4			19.2	25	W.	1	D.	2	Cu.		10.2
26.1	32.5	12	19.5	25	NNW.	1	NNW.	3	S.-Cu.		52.7
26.6	30.5	1	18.0	28	WSW.	1	W.	2	Cu.		35.6
27.1	34.6	28	22.0	21	E.	1	NE.	4	Cu.		183.4
	31.9	6	21.7	D.	N.	1	N.	4	N.		586.4
26.1	31.9	25	20.9	30	NNE.	1	D.	3	S.-Cu.		112.0
25.8			20.6	29	NNE.	1	NNW.	2	S.-Cu.		173.6

